

## **Lista completa delle pubblicazioni della Prof.ssa Francesca Pagnanelli**

### A – Articoli su riviste con IF

*Note: i dati citazionali sono stati estratti il 05/12/2021 dal database Scopus; l'IF è relativo all'anno di pubblicazione o a quello più vicino disponibile sul database Web of Science.*

1. Di Caprio, F., Pellini, A., Zanoni, R., Astolfi, M.L., Altimari, P., Pagnanelli, F., Two-phase synthesis of Fe-loaded hydrochar for As removal: The distinct effects of initial pH, reaction time and Fe/hydrochar ratio (2022) Journal of Environmental Management, 302, art. no. 114058  
IF 6,789, Cited 0 times, DOI: 10.1016/j.jenvman.2021.114058
2. Rubino, A., Zanoni, R., Schiavi, P.G., Latini, A., Pagnanelli, F., Two-Dimensional Restructuring of Cu<sub>2</sub>O Can Improve the Performance of Nanosized n-TiO<sub>2</sub>/p-Cu<sub>2</sub>O Photoelectrodes under UV-Visible Light (2021) ACS Applied Materials and Interfaces, 13 (40), pp. 47932-47944  
IF 9,229, Cited 0 times, DOI: 10.1021/acsami.1c13399
3. Schiavi, P.G., Zanoni, R., Branchi, M., Marcucci, C., Zamparelli, C., Altimari, P., Navarra, M.A., Pagnanelli, F., Upcycling Real Waste Mixed Lithium-Ion Batteries by Simultaneous Production of rGO and Lithium-Manganese-Rich Cathode Material (2021) ACS Sustainable Chemistry and Engineering, 9 (39), pp. 13303-13311  
IF 8,198, Cited 0 times, DOI: 10.1021/acssuschemeng.1c04690
4. Padoan, F.C.S.M., Schiavi, P.G., Belardi, G., Altimari, P., Rubino, A., Pagnanelli, F., Material flux through an innovative recycling process treating different types of end-of-life photovoltaic panels: Demonstration at pilot scale (2021) Energies, 14 (17), art. no. 5534  
IF 3,004, Cited 0 times, DOI: 10.3390/en14175534
5. Zanellato, G., Schiavi, P.G., Zanoni, R., Rubino, A., Altimari, P., Pagnanelli, F., Electrodeposited copper nanocatalysts for CO<sub>2</sub> electroreduction: Effect of electrodeposition conditions on catalysts' morphology and selectivity (2021) Energies, 14 (16), art. no. 5012  
IF 3,004, Cited 0 times, DOI: 10.3390/en14165012
6. Schiavi, P.G., Altimari, P., Branchi, M., Zanoni, R., Simonetti, G., Navarra, M.A., Pagnanelli, F., Selective recovery of cobalt from mixed lithium ion battery wastes using deep eutectic solvent (2021) Chemical Engineering Journal, 417, art. no. 129249  
IF 13,273, Cited 6 times, DOI: 10.1016/j.cej.2021.129249
7. Schiavi, P.G., Altimari, P., Zanoni, R., Pagnanelli, F., Full recycling of spent lithium ion batteries with production of core-shell nanowires//exfoliated graphite asymmetric supercapacitor (2021) Journal of Energy Chemistry, 58, pp. 336-344  
IF 9,676, Cited 15 times, DOI: 10.1016/j.jechem.2020.10.025
8. Di Caprio, F., Pipitone, L.M., Altimari, P., Pagnanelli, F., Extracellular and intracellular phenol production by microalgae during photoautotrophic batch cultivation (2021) New Biotechnology, 62, pp. 1-9  
IF 5,079, Cited 1 time, DOI: 10.1016/j.nbt.2020.12.003
9. Di Caprio, F., Tayou Nguemna, L., Stoller, M., Giona, M., Pagnanelli, F., Microalgae cultivation by uncoupled nutrient supply in sequencing batch reactor (SBR) integrated with olive mill wastewater treatment (2021) Chemical Engineering Journal, 410, art. no. 128417  
IF 13,273, Cited 4 times, DOI: 10.1016/j.cej.2021.128417

10. Schiavi, P.G., Altimari, P., Marzolo, F., Rubino, A., Zanoni, R., Pagnanelli, F., Optimizing the structure of Ni–Ni(OH)<sub>2</sub>/NiO core-shell nanowire electrodes for application in pseudocapacitors: The influence of metallic core, Ni(OH)<sub>2</sub>/NiO ratio and nanowire length (2021) *Journal of Alloys and Compounds*, 856, art. no. 157718  
IF 5,316, Cited 3 times, DOI: 10.1016/j.jallcom.2020.157718
11. Rubino, A., Schiavi, P.G., Altimari, P., Pagnanelli, F., Valorization of polymeric fractions and metals from end of life photovoltaic panels (2021) *Waste Management*, 122, pp. 89-99  
IF 7,145, Cited 1 time, DOI: 10.1016/j.wasman.2020.12.037
12. Di Caprio, F., Chelucci, R., Francolini, I., Altimari, P., Pagnanelli, F., Extraction of microalgal starch and pigments by using different cell disruption methods and aqueous two-phase system (2021) *Journal of Chemical Technology and Biotechnology*, 97, pp. 67–78.  
IF 3,174, Cited 0 times, DOI: 10.1002/jctb.6910
13. Angeloni, L., Passeri, D., Scaramuzzo, F.A., Schiavi, P.G., Pagnanelli, F., Rossi, M., Magnetic force microscopy characterization of core–shell cobalt-oxide/hydroxide nanoparticles (2020) *Journal of Magnetism and Magnetic Materials*, 516, art. no. 167299  
IF 2,993, Cited 1 time, DOI: 10.1016/j.jmmm.2020.167299
14. Rubino, A., Granata, G., Moscardini, E., Baldassari, L., Altimari, P., Toro, L., Pagnanelli, F., Development and techno-economic analysis of an advanced recycling process for photovoltaic panels enabling polymer separation and recovery of Ag and Si (2020) *Energies*, 13 (24), art. no. 6690  
IF 3,004, Cited 1 time, DOI: 10.3390/en13246690
15. Yenial, Ü., Atia, T.A., Granata, G., Pettiti, I., Pagnanelli, F., Recovery of nanoferrites from metal bearing wastes: Synthesis, characterization and adsorption study (2020) *Journal of Molecular Liquids*, 318, art. no. 114047  
IF 6,165, Cited 1 time, DOI: 10.1016/j.molliq.2020.114047
16. Capobianco, L., Di Caprio, F., Altimari, P., Astolfi, M.L., Pagnanelli, F., Production of an iron-coated adsorbent for arsenic removal by hydrothermal carbonization of olive pomace: Effect of the feedwater pH (2020) *Journal of Environmental Management*, 273, art. no. 111164  
IF 6,789, Cited 9 times, DOI: 10.1016/j.jenvman.2020.111164
17. Di Caprio, F., Altimari, P., Pagnanelli, F., Sequential extraction of lutein and β-carotene from wet microalgal biomass (2020) *Journal of Chemical Technology and Biotechnology*, 95 (11), pp. 3024-3033  
IF 3,174, Cited 8 times, DOI: 10.1002/jctb.6464
18. Schiavi, P.G., Baldassari, L., Altimari, P., Moscardini, E., Toro, L., Pagnanelli, F., Process simulation for Li-MnO<sub>2</sub> primary battery recycling: Cryo-mechanical and hydrometallurgical treatments at pilot scale (2020) *Energies*, 13 (17), art. no. en13174546  
IF 3,004, Cited 0 times, DOI: 10.3390/en13174546
19. Schiavi, P.G., Dos Santos Martins Padoan, F.C., Altimari, P., Pagnanelli, F., Cryo-mechanical treatment and hydrometallurgical process for recycling Li-MnO<sub>2</sub> primary batteries with the direct production of LiMnPO<sub>4</sub> nanoparticles (2020) *Energies*, 13 (15), art. no. 4004  
IF 3,004, Cited 1 time, DOI: 10.3390/en13154004
20. Yenial, Ü., Bulut, G., Pagnanelli, F., Manganese ferrite nanoparticle production from industrial wastes as sorbent material for arsenic removal from aqueous solutions (2020) *Particulate Science and Technology*, 38 (4), pp. 433-442

IF 2,356, Cited 2 times, DOI: 10.1080/02726351.2018.1560378

21. Abo Atia, T., Granata, G., Spooren, J., Pagnanelli, F., Recovery and application of magnetic nanosized sorbents from waste lithium-ion batteries (2020) *Ceramics International*, 46 (6), pp. 7559-7567  
IF 4,527, Cited 1 time, DOI: 10.1016/j.ceramint.2019.11.255
22. Mazzelli, A., Cicci, A., Di Caprio, F., Altimari, P., Toro, L., Iaquaniello, G., Pagnanelli, F., Multivariate modeling for microalgae growth in outdoor photobioreactors (2020) *Algal Research*, 45, art. no. 101663  
IF 4,401, Cited 9 times, DOI: 10.1016/j.algal.2019.101663
23. Pagnanelli, F., Moscardini, E., Altimari, P., Padoan, F.C.S.M., Abo Atia, T., Beolchini, F., Amato, A., Toro, L., Solvent versus thermal treatment for glass recovery from end of life photovoltaic panels: Environmental and economic assessment (2019) *Journal of Environmental Management*, 248, art. no. 109313  
IF 5,647, Cited 5 times, DOI: 10.1016/j.jenvman.2019.109313
24. Altimari, P., Schiavi, P.G., Rubino, A., Pagnanelli, F., Electrodeposition of cobalt nanoparticles: An analysis of the mechanisms behind the deviation from three-dimensional diffusion-control (2019) *Journal of Electroanalytical Chemistry*, 851, art. no. 113413  
IF 3,807, Cited 9 times, DOI: 10.1016/j.jelechem.2019.113413
25. Schiavi, P.G., Farina, L., Zanoni, R., Altimari, P., Cojocariu, I., Rubino, A., Navarra, M.A., Panero, S., Pagnanelli, F., Electrochemical synthesis of nanowire anodes from spent lithium ion batteries (2019) *Electrochimica Acta*, 319, pp. 481-489  
IF 6,215, Cited 22 times, DOI: 10.1016/j.electacta.2019.07.024
26. Pagnanelli, F., Shape evolution and effect of organic additives in the electrosynthesis of Cu nanostructures (2019) *Journal of Solid State Electrochemistry*, 23 (9), pp. 2723-2735  
IF 2,646, Cited 4 times, DOI: 10.1007/s10008-019-04360-z
27. Atia, T.A., Elia, G., Hahn, R., Altimari, P., Pagnanelli, F., Closed-loop hydrometallurgical treatment of end-of-life lithium ion batteries: Towards zero-waste process and metal recycling in advanced batteries (2019) *Journal of Energy Chemistry*, 35, pp. 220-227  
IF 7,216, Cited 32 times, DOI: 10.1016/j.jecchem.2019.03.022
28. Chronopoulou, L., Dal Bosco, C., Di Caprio, F., Prosini, L., Gentili, A., Pagnanelli, F., Palocci, C., Extraction of carotenoids and fat-soluble vitamins from *Tetraselmus obliquus* microalgae: An optimized approach by using supercritical CO<sub>2</sub> (2019) *Molecules*, 24 (14), art. no. 2581  
IF 3,267, Cited 11 times, DOI: 10.3390/molecules24142581
29. Granata, G., Miura, A., Liu, W., Pagnanelli, F., Tokoro, C., Iodide-assisted leaching of chalcopyrite in acidic ferric sulfate media (2019) *Hydrometallurgy*, 186, pp. 244-251  
IF 3,338, Cited 7 times, DOI: 10.1016/j.hydromet.2019.04.019
30. Di Caprio, F., Altimari, P., Iaquaniello, G., Toro, L., Pagnanelli, F., Heterotrophic cultivation of *T. obliquus* under non-axenic conditions by uncoupled supply of nitrogen and glucose (2019) *Biochemical Engineering Journal*, 145, pp. 127-136  
IF 3,475, Cited 15 times, DOI: 10.1016/j.bej.2019.02.020
31. Altimari, P., Greco, F., Pagnanelli, F., Nucleation and growth of metal nanoparticles on a planar electrode: A new model based on iso-nucleation-time classes of particles (2019) *Electrochimica Acta*, 296, pp. 82-93

IF 6,215, Cited 5 times, DOI: 10.1016/j.electacta.2018.10.198

32. Di Caprio, F., Scarponi, P., Altimari, P., Iaquaniello, G., Pagnanelli, F., The influence of phenols extracted from olive mill wastewater on the heterotrophic and mixotrophic growth of *Scenedesmus* sp. (2018) *Journal of Chemical Technology and Biotechnology*, 93 (12), pp. 3619-3626  
IF 2,659, Cited 19 times, DOI: 10.1002/jctb.5743
33. Schiavi, P.G., Farina, L., Altimari, P., Navarra, M.A., Zanoni, R., Panero, S., Pagnanelli, F., A versatile electrochemical method to synthesize Co-CoO core-shell nanowires anodes for lithium ion batteries with superior stability and rate capability (2018) *Electrochimica Acta*, 290, pp. 347-355  
IF 5,383, Cited 17 times, DOI: 10.1016/j.electacta.2018.09.046
34. Di Caprio, F., Altimari, P., Pagnanelli, F., Integrated microalgae biomass production and olive mill wastewater biodegradation: Optimization of the wastewater supply strategy (2018) *Chemical Engineering Journal*, 349, pp. 539-546  
IF 8,355, Cited 23 times, DOI: 10.1016/j.cej.2018.05.084
35. Di Caprio, F., Pagnanelli, F., Wijffels, R.H., Van der Veen, D., Quantification of *Tetradesmus obliquus* (Chlorophyceae) cell size and lipid content heterogeneity at single-cell level (2018) *Journal of Phycology*, 54 (2), pp. 187-197  
IF 2,831, Cited 17 times, DOI: 10.1111/jpy.12610
36. Di Caprio, F., Altimari, P., Pagnanelli, F., Effect of Ca<sup>2+</sup> concentration on *Scenedesmus* sp. growth in heterotrophic and photoautotrophic cultivation (2018) *New Biotechnology*, 40, pp. 228-235  
IF 3,729, Cited 20 times, DOI: 10.1016/j.nbt.2017.09.003
37. Schiavi, P.G., Altimari, P., Rubino, A., Pagnanelli, F., Electrodeposition of cobalt nanowires into alumina templates generated by one-step anodization (2018) *Electrochimica Acta*, 259, pp. 711-722.  
IF 5,383, Cited 21 times, DOI: 10.1016/j.electacta.2017.11.035
38. Pagnanelli, F., Moscardini, E., Altimari, P., Abo Atia, T., Toro, L., Leaching of electrodic powders from lithium ion batteries: Optimization of operating conditions and effect of physical pretreatment for waste fraction retrieval (2017) *Waste Management*, 60, pp. 706-715  
IF 4,723, Cited 43 times, DOI: 10.1016/j.wasman.2016.11.037
39. Pagnanelli, F., Moscardini, E., Granata, G., Abo Atia, T., Altimari, P., Havlik, T., Toro, L., Physical and chemical treatment of end of life panels: An integrated automatic approach viable for different photovoltaic technologies (2017) *Waste Management*, 59, pp. 422-431  
IF 4,723, Cited 42 times, DOI: 10.1016/j.wasman.2016.11.011
40. Schiavi, P.G., Altimari, P., Zanoni, R., Pagnanelli, F., Morphology-controlled synthesis of cobalt nanostructures by facile electrodeposition: transition from hexagonal nanoplatelets to nanoflakes (2016) *Electrochimica Acta*, 220, pp. 405-416  
IF 4.798, Cited 30 times, DOI: 10.1016/j.electacta.2016.10.117
41. Altimari, P., Pagnanelli, F., Electrochemical nucleation and three-dimensional growth of metal nanoparticles under mixed kinetic-diffusion control: model development and validation (2016) *Electrochimica Acta*, 206, pp. 116-126  
IF 4,798, Cited 39 times, DOI: 10.1016/j.electacta.2016.04.094
42. Altimari, P., Pagnanelli, F., Electrochemical nucleation and three-dimensional growth under mixed kinetic-diffusion control: Analytical approximation of the current transient (2016) *Electrochimica Acta*, 205, pp. 113-117

IF 4,798, Cited 17 times, DOI: 10.1016/j.electacta.2016.04.093

43. Granata, G., Yamaoka, T., Pagnanelli, F., Fuwa, A., Study of the synthesis of copper nanoparticles: the role of capping and kinetic towards control of particle size and stability (2016) *Journal of Nanoparticle Research*, 18 (5), art. no. 133  
IF 2,020, Cited 32 times, DOI: 10.1007/s11051-016-3438-6
44. Pagnanelli, F., Moscardini, E., Altimari, P., Abo Atia, T., Toro, L., Cobalt products from real waste fractions of end of life lithium ion batteries (2016) *Waste Management*, 51, pp. 214-221  
IF 4.030, Cited 90 times, DOI: 10.1016/j.wasman.2015.11.003
45. Cibati, A., Pagnanelli, F., Toro, L., Metal recovery from end-of-life hydrotreating catalysts by selective precipitation: Laboratory tests and preliminary process analysis (2015) *Environmental Progress and Sustainable Energy*, 34 (3), pp. 703-712  
IF 1,631, Cited 6 times, DOI: 10.1002/ep.12053
46. Di Caprio, F., Altimari, P., Pagnanelli, F., Integrated biomass production and biodegradation of olive mill wastewater by cultivation of *Scenedesmus* sp. (2015) *Algal Research*, 9, pp. 306-311  
IF 4,694, Cited 40 times, DOI: 10.1016/j.algal.2015.04.007
47. Granata, G., Pagnanelli, F., Nishio-Hamane, D., Sasaki, T., Effect of surfactant/water ratio and reagents' concentration on size distribution of manganese carbonate nanoparticles synthesized by microemulsion mediated route (2015) *Applied Surface Science*, 331, art. no. 29538, pp. 463-471  
IF 3,150, Cited 15 times, DOI: 10.1016/j.apsusc.2015.01.101
48. Pagnanelli, F., Altimari, P., Bellagamba, M., Granata, G., Moscardini, E., Schiavi, P.G., Toro, L., Pulsed electrodeposition of cobalt nanoparticles on copper: Influence of the operating parameters on size distribution and morphology (2015) *Electrochimica Acta*, 155, pp. 228-235  
IF 4,803, Cited 40 times, DOI: 10.1016/j.electacta.2014.12.112
49. Pagnanelli, F., Moscardini, E., Granata, G., Cerbelli, S., Agosta, L., Fieramosca, A., Toro, L., Acid reducing leaching of cathodic powder from spent lithium ion batteries: Glucose oxidative pathways and particle area evolution (2014) *Journal of Industrial and Engineering Chemistry*, 20 (5), pp. 3201-3207  
IF 3,512, Cited 65 times, DOI: 10.1016/j.jiec.2013.11.066
50. Di Caprio, F., Altimari, P., Uccelletti, D., Pagnanelli, F., Mechanistic modelling of copper biosorption by wild type and engineered *Saccharomyces cerevisiae* biomasses (2014) *Chemical Engineering Journal*, 244, pp. 561-568.  
IF 4,321, Cited 13 times, DOI: 10.1016/j.cej.2014.01.098
51. Granata, G., Pagnanelli, F., Moscardini, E., Havlik, T., Toro, L., Recycling of photovoltaic panels by physical operations (2014) *Solar Energy Materials and Solar Cells*, 123, pp. 239-248  
IF 5,337, Cited 89 times, DOI: 10.1016/j.solmat.2014.01.012
52. Pagnanelli, F., Cruz Viggi, C., Beolchini, F., Grieco, L., Vegliò, F., Toro, L., Bioactive and passive mechanisms of pollutant removal in bioreduction processes in fixed bed columns: Numerical simulations (2014) *Environmental Progress and Sustainable Energy*, 33 (1), pp. 70-80  
IF 1,403, Cited 1 time, DOI: 10.1002/ep.11753
53. Pagnanelli, F., Altimari, P., Trabucco, F., Toro, L., Mixotrophic growth of *Chlorella vulgaris* and *Nannochloropsis oculata*: Interaction between glucose and nitrate (2014) *Journal of Chemical Technology and Biotechnology*, 89 (5), pp. 652-661

IF 2.349, Cited 47 times, DOI: 10.1002/jctb.4179

54. Pagnanelli, F., Jbari, N., Trabucco, F., Martínez, M.E., Sánchez, S., Toro, L., Biosorption-mediated reduction of Cr(VI) using heterotrophically-grown Chlorella vulgaris: Active sites and ionic strength effect (2013) *Chemical Engineering Journal*, 231, pp. 94-102  
IF 4,058, Cited 23 times, DOI: 10.1016/j.cej.2013.07.013
55. Pagnanelli, F., Granata, G., Moscardini, E., Toro, L., Synthesis of MnCO<sub>3</sub> nanoparticles by microemulsions: Statistical evaluation of the effects of operating conditions on particle size distribution (2013) *Journal of Nanoparticle Research*, 15 (9), art. no. 1887  
IF 2,278, Cited 10 times, DOI: 10.1007/s11051-013-1887-8
56. Cibati, A., Cheng, K.Y., Morris, C., Ginige, M.P., Sahinkaya, E., Pagnanelli, F., Kaksonen, A.H., Selective precipitation of metals from synthetic spent refinery catalyst leach liquor with biogenic H<sub>2</sub>S produced in a lactate-fed anaerobic baffled reactor (2013) *Hydrometallurgy*, 139, pp. 154-161  
IF 2,224, Cited 19 times, DOI: 10.1016/j.hydromet.2013.01.022
57. Granata, G., Pagnanelli, F., Moscardini, E., Takacova, Z., Havlik, T., Toro, L., Simultaneous recycling of nickel metal hydride, lithium ion and primary lithium batteries: Accomplishment of European Guidelines by optimizing mechanical pre-treatment and solvent extraction operations (2012) *Journal of Power Sources*, 212, pp. 205-211  
IF 4,675, Cited 82 times, DOI: 10.1016/j.jpowsour.2012.04.016
58. Pagnanelli, F., Viggi, C.C., Toro, L., Acid mine drainage attenuation by inhibition of pyrite bioleaching using limestone and olive pomace (2012) *Chemistry and Ecology*, 28 (3), pp. 293-303  
IF 1,069, Cited 1 time, DOI: 10.1080/02757540.2011.651128
59. Granata, G., Moscardini, E., Pagnanelli, F., Trabucco, F., Toro, L., Product recovery from Li-ion battery wastes coming from an industrial pre-treatment plant: Lab scale tests and process simulations (2012) *Journal of Power Sources*, 206, pp. 393-401  
IF 4,675, Cited 105 times, DOI: 10.1016/j.jpowsour.2012.01.115
60. Pagnanelli, F., Cruz Viggi, C., Cibati, A., Uccelletti, D., Toro, L., Palleschi, C., Biotreatment of Cr(VI) contaminated waters by sulphate reducing bacteria fed with ethanol (2012) *Journal of Hazardous Materials*, 199-200, pp. 186-192  
IF 3,925, Cited 54 times, DOI: 10.1016/j.jhazmat.2011.10.082
61. Pagnanelli, F., Ferella, F., De Michelis, I., Vegliò, F., Adsorption onto activated carbon for molybdenum recovery from leach liquors of exhausted hydrotreating catalysts (2011) *Hydrometallurgy*, 110 (1-4), pp. 67-72  
IF 2.027, Cited 30 times, DOI: 10.1016/j.hydromet.2011.08.008
62. Granata, G., Moscardini, E., Furlani, G., Pagnanelli, F., Toro, L., Automobile shredded residue valorisation by hydrometallurgical metal recovery (2011) *Journal of Hazardous Materials*, 185 (1), pp. 44-48  
IF 4,173, Cited 31 times, DOI: 10.1016/j.jhazmat.2010.08.107
63. Pagnanelli, F., Viggi, C.C., Toro, L., Development of new composite biosorbents from olive pomace wastes (2010) *Applied Surface Science*, 256 (17), pp. 5492-5497  
IF 1,795, Cited 23 times, DOI: 10.1016/j.apsusc.2009.12.146

64. Pagnanelli, F., Cruz Viggi, C., Toro, L., Isolation and quantification of cadmium removal mechanisms in batch reactors inoculated by sulphate reducing bacteria: Biosorption versus bioprecipitation (2010) *Bioresource Technology*, 101 (9), pp. 2981-2987  
IF 4,365, Cited 59 times, DOI: 10.1016/j.biortech.2009.12.009
65. Cruz Viggi, C., Pagnanelli, F., Cibati, A., Uccelletti, D., Palleschi, C., Toro, L., Biotreatment and bioassessment of heavy metal removal by sulphate reducing bacteria in fixed bed reactors (2010) *Water Research*, 44 (1), pp. 151-158  
IF 4,546, Cited 66 times, DOI: 10.1016/j.watres.2009.09.013
66. Pagnanelli, F., Cruz Viggi, C., Mainelli, S., Toro, L., Assessment of solid reactive mixtures for the development of biological permeable reactive barriers (2009) *Journal of Hazardous Materials*, 170 (2-3), pp. 998-1005  
IF 4,144, Cited 36 times, DOI: 10.1016/j.jhazmat.2009.05.081
67. Furlani, G., Moscardini, E., Pagnanelli, F., Ferella, F., Vegliò, F., Toro, L., Recovery of manganese from zinc alkaline batteries by reductive acid leaching using carbohydrates as reductant (2009) *Hydrometallurgy*, 99 (1-2), pp. 115-118  
IF 2,078, Cited 40 times, DOI: 10.1016/j.hydromet.2009.07.005
68. Cruz Viggi, C., Pagnanelli, F., Toro, L., Sulphate bioreduction for the treatment of polluted waters: Solid versus liquid organic substrates (2009) *Journal of Chemical Technology and Biotechnology*, 84 (6), pp. 859-863  
IF 2,045, Cited 3 times, DOI: 10.1002/jctb.2168
69. Pagnanelli, F., Mainelli, S., Bornoroni, L., Dionisi, D., Toro, L., Mechanisms of heavy-metal removal by activated sludge (2009) *Chemosphere*, 75 (8), pp. 1028-1034  
IF 3.253, Cited 65 times, DOI: 10.1016/j.chemosphere.2009.01.043
70. Pagnanelli, F., De Michelis, I., Di Muzio, S., Ferella, F., Vegliò, F., Bioassessment of a combined chemical-biological treatment for synthetic acid mine drainage (2008) *Journal of Hazardous Materials*, 159 (2-3), pp. 567-573  
IF 2,975, Cited 10 times, DOI: 10.1016/j.jhazmat.2008.02.067
71. Dionisi, D., Bornoroni, L., Mainelli, S., Majone, M., Pagnanelli, F., Papini, M.P., Theoretical and experimental analysis of the role of sludge age on the removal of adsorbed micropollutants in activated sludge processes (2008) *Industrial and Engineering Chemistry Research*, 47 (17), pp. 6775-6782  
IF 1,895, Cited 13 times, DOI: 10.1021/ie071280v
72. Martín-Lara, M.A., Pagnanelli, F., Mainelli, S., Calero, M., Toro, L., Chemical treatment of olive pomace: Effect on acid-basic properties and metal biosorption capacity (2008) *Journal of Hazardous Materials*, 156 (1-3), pp. 448-457  
IF 2,975, Cited 73 times, DOI: 10.1016/j.jhazmat.2007.12.035
73. Beolchini, F., Pagnanelli, F., Toro, L., Vegliò, F., A methodological approach for dynamic modelling of membrane integrated biosorption: A case study on *Sphaerotilus natans* as biosorbent (2008) *International Journal of Environment and Pollution*, 34 (1-4), pp. 325-339  
IF 0,568, Cited 2 times, DOI: 10.1504/ijep.2008.020801
74. Francesca, P., Sara, M., Luigi, T., New biosorbent materials for heavy metal removal: Product development guided by active site characterization (2008) *Water Research*, 42 (12), pp. 2953-2962  
IF 3,587, Cited 60 times, DOI: 10.1016/j.watres.2008.03.012

75. Giuliano, V., Pagnanelli, F., Bornoroni, L., Toro, L., Abbruzzese, C., Toxic elements at a disused mine district: Particle size distribution and total concentration in stream sediments and mine tailings (2007) *Journal of Hazardous Materials*, 148 (1-2), pp. 409-418  
IF 2,337, Cited 35 times, DOI: 10.1016/j.jhazmat.2007.02.063
76. Beolchini, F., Pagnanelli, F., De Michelis, I., Vegliò, F., Treatment of concentrated arsenic(V) solutions by micellar enhanced ultrafiltration with high molecular weight cut-off membrane (2007) *Journal of Hazardous Materials*, 148 (1-2), pp. 116-121  
IF 2,337, Cited 35 times, DOI: 10.1016/j.jhazmat.2007.02.031
77. Pagnanelli, F., Luigi, M., Mainelli, S., Toro, L., Use of natural materials for the inhibition of iron oxidizing bacteria involved in the generation of acid mine drainage (2007) *Hydrometallurgy*, 87 (1-2), pp. 27-35  
IF 1,324, Cited 23 times, DOI: 10.1016/j.hydromet.2007.01.002
78. Adrover, A., Giona, M., Pagnanelli, F., Toro, L., Influence of surface heterogeneity in electroosmotic flows-Implications in chromatography, fluid mixing, and chemical reactions in microdevices (2007) *Applied Surface Science*, 253 (13 SPEC. ISS.), pp. 5785-5790  
IF 1,406, Cited 3 times, DOI: 10.1016/j.apsusc.2006.12.067
79. Pagnanelli, F., Sambenedetto, C., Furlani, G., Vegliò, F., Toro, L. Preparation and characterisation of chemical manganese dioxide: Effect of the operating conditions (2007) *Journal of Power Sources*, 166 (2), pp. 567-577  
IF 2,809, Cited 46 times, DOI: 10.1016/j.jpowsour.2007.01.066
80. Beolchini, F., Pagnanelli, F., De Michelis, I., Vegliò, F. Micellar enhanced ultrafiltration for arsenic(V) removal: Effect of main operating conditions and dynamic modelling (2006) *Environmental Science and Technology*, 40 (8), pp. 2746-2752  
IF 4.040, Cited 44 times, DOI: 10.1021/es052114m
81. Furlani, G., Pagnanelli, F., Toro, L., Reductive acid leaching of manganese dioxide with glucose: Identification of oxidation derivatives of glucose (2006) *Hydrometallurgy*, 81 (3-4), pp. 234-240  
IF 1,227, Cited 75 times, DOI: 10.1016/j.hydromet.2005.12.008
82. Pagnanelli, F., Bornoroni, L., Moscardini, E., Toro, L., Non-electrostatic surface complexation models for protons and lead(II) sorption onto single minerals and their mixture (2006) *Chemosphere*, 63 (7), pp. 1063-1073  
IF 2,442, Cited 24 times, DOI: 10.1016/j.chemosphere.2005.09.017
83. Beolchini, F., Pagnanelli, F., Toro, L., Vegliò, F., Ionic strength effect on copper biosorption by *Sphaerotilus natans*: Equilibrium study and dynamic modelling in membrane reactor (2006) *Water Research*, 40 (1), pp. 144-152  
IF 2,459, Cited 61 times, DOI: 10.1016/j.watres.2005.10.031
84. Pagnanelli, F., Mainelli, S., Toro, L., Optimisation and validation of mechanistic models for heavy metal bio-sorption onto a natural biomass (2005) *Hydrometallurgy*, 80 (1-2), pp. 107-125  
IF 1,163, Cited 16 times, DOI: 10.1016/j.hydromet.2005.07.008
85. Pagnanelli, F., Mainelli, S., De Angelis, S., Toro, L., Biosorption of protons and heavy metals onto olive pomace: Modelling of competition effects (2005) *Water Research*, 39 (8), pp. 1639-1651  
IF 3,019, Cited 61 times, DOI: 10.1016/j.watres.2005.01.019

86. Beolchini, F., Pagnanelli, F., Toro, L., Vegliò, F., Continuous biosorption of copper and lead in single and binary systems using *Sphaerotilus natans* cells confined by a membrane: Experimental validation of dynamic models (2005) *Hydrometallurgy*, 76 (1-2), pp. 73-85  
IF 1,163, Cited 19 times, DOI: 10.1016/j.hydromet.2004.09.003
87. Pagnanelli, F., Furlani, G., Valentini, P., Vegliò, F., Toro, L., Leaching of low-grade manganese ores by using nitric acid and glucose: Optimization of the operating conditions (2004) *Hydrometallurgy*, 75 (1-4), pp. 157-167  
IF 1,088, Cited 56 times, DOI: 10.1016/j.hydromet.2004.07.007
88. Pagnanelli, F., Moscardini, E., Giuliano, V., Toro, L., Sequential extraction of heavy metals in river sediments of an abandoned pyrite mining area: Pollution detection and affinity series (2004) *Environmental Pollution*, 132 (2), pp. 189-201  
IF 2,205, Cited 102 times, DOI: 10.1016/j.envpol.2004.05.002
89. Adrover, A., Velardo, A., Giona, M., Cerbelli, S., Pagnanelli, F., Toro, L., The sporulation model for manganiferous ore dissolution (2004) *Chemical Engineering Science*, 59 (22-23), pp. 5107-5112  
IF 1,655, Cited 2 times, DOI: 10.1016/j.ces.2004.08.031
90. Pagnanelli, F., Bornoroni, L., Toro, L., Proton binding onto soil by nonelectrostatic models: Isolation and identification of mineral contributions (2004) *Environmental Science and Technology*, 38 (20), pp. 5443-5449  
IF 3,557, Cited 6 times, DOI: 10.1021/es049760q
91. Adrover, A., Velardo, A., Giona, M., Cerbelli, S., Pagnanelli, F., Toro, L., Structural modelling for the dissolution of non-porous ores: Dissolution with sporulation (2004) *Chemical Engineering Journal*, 99 (2), pp. 89-104  
IF 1,383, Cited 10 times, DOI: 10.1016/j.cej.2003.10.001
92. Beolchini, F., Pagnanelli, F., Toro, L., Vegliò, F., Copper biosorption by *Sphaerotilus natans* confined in UF membrane module: Experimental study and kinetic modeling (2004) *Hydrometallurgy*, 72 (1-2), pp. 21-30  
IF 1,088, Cited 8 times, DOI: 10.1016/S0304-386X(03)00135-X
93. Pagnanelli, F., Vegliò, F., Toro, L., Modelling of the acid-base properties of natural and synthetic adsorbent materials used for heavy metal removal from aqueous solutions (2004) *Chemosphere*, 54 (7), pp. 905-915  
IF 2,359, Cited 46 times, DOI: 10.1016/j.chemosphere.2003.09.003
94. Pagnanelli, F., Beolchini, F., Di Biase, A., Vegliò, F., Biosorption of binary heavy metal systems onto *Sphaerotilus natans* cells confined in an UF/MF membrane reactor: Dynamic simulations by different Langmuir-type competitive models (2004) *Water Research*, 38 (4), pp. 1055-1061  
IF 2,304, Cited 19 times, DOI: 10.1016/j.watres.2003.10.031
95. Pagnanelli, F., Garavini, M., Vegliò, F., Toro, L., Preliminary screening of purification processes of liquor leach solutions obtained from reductive leaching of low-grade manganese ores (2004) *Hydrometallurgy*, 71 (3-4), pp. 319-327  
IF 1,088, Cited 48 times, DOI: 10.1016/S0304-386X(02)00156-1
96. Pagnanelli, F., Beolchini, F., Esposito, A., Toro, L., Vegliò, F., Mechanistic modeling of heavy metal biosorption in batch and membrane reactor systems (2003) *Hydrometallurgy*, 71 (1-2), pp. 201-208  
IF 1,140, Cited 14 times, DOI: 10.1016/S0304-386X(03)00157-9

97. Beolchini, F., Pagnanelli, F., Reverberi, A.P., Vegliò, F., Copper biosorption onto Rhizopus oligosporus: pH-edge tests and related kinetic and equilibrium modeling (2003) Industrial and Engineering Chemistry Research, 42 (20), pp. 4881-4887  
IF 1,317, Cited 27 times, DOI: 10.1021/ie020829h
98. Pagnanelli, F., Beolchini, F., Di Biase, A., Vegliò, F., Effect of equilibrium models in the simulation of heavy metal biosorption in single and two-stage UF/MF membrane reactor systems (2003) Biochemical Engineering Journal, 15 (1), pp. 27-35  
IF 1,221, Cited 10 times, DOI: 10.1016/S1369-703X(02)00179-1
99. Beolchini, F., Pagnanelli, F., Toro, L., Vegliò, F., Biosorption of copper by Sphaerotilus natans immobilised in polysulfone matrix: Equilibrium and kinetic analysis (2003) Hydrometallurgy, 70 (1-3), pp. 101-112  
IF 1,140, Cited 64 times, DOI: 10.1016/S0304-386X(03)00049-5
100. Pagnanelli, F., Esposito, A., Toro, L., Vegliò, F., Metal speciation and pH effect on Pb, Cu, Zn and Cd biosorption onto Sphaerotilus natans: Langmuir-type empirical model (2003) Water Research, 37 (3), pp. 627-633  
IF 1,812, Cited 200 times, DOI: 10.1016/S0043-1354(02)00358-5
101. Pagnanelli, F., Mainelli, S., Vegliò, F., Toro, L., Heavy metal removal by olive pomace: Biosorbent characterisation and equilibrium modelling (2003) Chemical Engineering Science, 58 (20), pp. 4709-4717  
IF 1,562, Cited 276 times, DOI: 10.1016/j.ces.2003.08.001
102. Velardo, A., Giona, M., Adrover, A., Pagnanelli, F., Toro, L., Two-layer shrinking-core model: Parameter estimation for the reaction order in leaching processes (2002) Chemical Engineering Journal, 90 (3), pp. 231-240  
IF 0,671, Cited 30 times, DOI: 10.1016/S1385-8947(02)00038-4
103. Vegliò, F., Di Biase, A., Beolchini, F., Pagnanelli, F., Heavy metal biosorption in binary systems: Simulation in single- and two-stage UF/MF membrane reactors (2002) Hydrometallurgy, 66 (1-3), pp. 107-115  
IF 1,087, Cited 13 times, DOI: 10.1016/S0304-386X(02)00112-3
104. Giona, M., Adrover, A., Pagnanelli, F., Toro, L., A closed-form solution of population-balance models for the dissolution of polydisperse mixtures (2002) Chemical Engineering Journal, 87 (3), pp. 275-284  
IF 0,671, Cited 10 times, DOI: 10.1016/S1385-8947(01)00242-X
105. Pagnanelli, F., Esposito, A., Toro, L., Vegliò, F., Copper and cadmium biosorption onto Sphaerotilus natans: Application and discrimination of commonly used adsorption models (2002) Separation Science and Technology, 37 (3), pp. 677-699  
IF 0,779, Cited 12 times, DOI: 10.1081/SS-120001454
106. Esposito, A., Pagnanelli, F., Vegliò, F., pH-related equilibria models for biosorption in single metal systems (2002) Chemical Engineering Science, 57 (3), pp. 307-313  
IF 1,224, Cited 209 times, DOI: 10.1016/S0009-2509(01)00399-2
107. Pagnanelli, F., Toro, L., Vegliò, F., Olive mill solid residues as heavy metal sorbent material: A preliminary study (2002) Waste Management, 22 (8), pp. 901-907  
IF 0,726, Cited 93 times, DOI: 10.1016/S0956-053X(02)00086-7

108. Pagnanelli, F., Esposito, A., Vegliò, F., Multi-metallic modelling for biosorption of binary systems (2002) *Water Research*, 36 (16), pp. 4095-4105  
IF 1,611, Cited 94 times, DOI: 10.1016/S0043-1354(02)00112-4
109. Pagnanelli, F., Trifoni, M., Beolchini, F., Esposito, A., Toro, L., Vegliò, F., Equilibrium biosorption studies in single and multi-metal systems (2001) *Process Biochemistry*, 37 (2), pp. 115-124  
IF 0,869, Cited 97 times, DOI: 10.1016/S0032-9592(01)00180-7
110. Beolchini, F., Pagnanelli, F., Vegliò, F., Modeling of copper biosorption by *Arthrobacter* sp. in a UF/MF membrane reactor (2001) *Environmental Science and Technology*, 35 (14), pp. 3048-3054  
IF 2,707, Cited 23 times, DOI: 10.1021/es000159b
111. Vegliò, F., Trifoni, M., Pagnanelli, F., Toro, L., Shrinking core model with variable activation energy: A kinetic model of manganese ore leaching with sulphuric acid and lactose (2001) *Hydrometallurgy*, 60 (2), pp. 167-179  
IF 0,654, Cited 68 times, DOI: 10.1016/S0304-386X(00)00197-3
112. Esposito, A., Pagnanelli, F., Lodi, A., Solisio, C., Vegliò, F., Biosorption of heavy metals by *Sphaerotilus natans*: An equilibrium study at different pH and biomass concentrations (2001) *Hydrometallurgy*, 60 (2), pp. 129-141  
IF 0,654, Cited 252 times, DOI: 10.1016/S0304-386X(00)00195-X
113. Pagnanelli, F., Papini, M.P., Toro, L., Trifoni, M., Vegliò, F., Biosorption of metal ions on *Arthrobacter* sp.: Biomass characterization and biosorption modeling (2000) *Environmental Science and Technology*, 34 (13), pp. 2773-2778  
IF 3,065, Cited 287 times, DOI: 10.1021/es991271g

## B – Review su riviste con IF

- Flavia Carla dos Santos Martins Padoan; Pietro Altimari; Francesca Pagnanelli (2019) Recycling of end of life photovoltaic panels: a chemical perspective on process development, Review Article, *Solar Energy* Volume 177, 1 January 2019, Pages 746-761.  
IF 4,608, Citazioni 45, doi.org/10.1016/j.solener.2018.12.003

## C – Pubblicazioni su riviste senza IF

- Francesca Pagnanelli, Pietro Altimari, Pier Giorgio Schiavi (2021) Sviluppo di processo per batterie Li-ione a fine vita La Chimica e l'industria Anno Quinto Numero 5, Settembre/Ottobre 2021, pp. 24-28 DOI: http://dx.medra.org/10.17374/CI.2021.103.5.24
- Francesca Pagnanelli, Emanuela Moscardini, Thomas Abo Atia, Luigi Toro. (2016) Photovoltaic panel recycling: from type selective processes to flexible apparatus for simultaneous treatment of different types *Mineral Processing and Extractive Metallurgy Transactions of the Institutions of Mining and Metallurgy: Section C*, 125 (issue 4: Shechtman International Symposium) 221-227. DOI: 10.1080/03719553.2016.1200764
- Beolchini F, Rocchetti L, Altimari P, De Michelis I, Toro L, Pagnanelli F, Moscardini E, Kopacek B, Ferrari B, Innocenzi V, Vegliò F (2013) Urban mining: a successful experience of the EU-FP7 HydroWEEE project *Environmental engineering and management journal* 12(11): 69-72
- Cruz Viggi C., Pagnanelli F., Mainelli S., Testa V., Cibati A., Toro L. (2008) Treatment of heavy metal's contaminated waters using permeable reactive barriers: from batch to column experiments.

Italian Journal Of Engineering Geology And Environment Proceedings pages 37-40. Casa Editrice Università la Sapienza (ISBN 978-88-87242-98-0).

5. Ferella F., De Michelis I., Pagnanelli F., Beolchini F., Furlani G., Navarra M.A., Vegliò F., Toro L. (2006). Recovery of Zinc and Manganese from spent batteries by different leaching systems. *Acta Metallurgica Slovaca*, vol. 12; p. 95-103 (ISSN: 1335-1532)
6. Pagnanelli F., Toro L., Beolchini F., Vegliò F. (2002) Dynamic simulation and experimental validation of mono and multi-component metallic solutions in the biosorption of heavy metals in membrane reactors: an overview *European Journal Of Mineral Processing And Environmental Protection Special Issue Biotreatment & Biosorption-I Vol. 2 No. 3, 205-219*(ISSN 1303-0868).

#### D – Capitoli di libri

1. Rubino, A.; Almeida, J.; Magro, C.; Schiavi, P.G.; Guedes, P.; Couto, N.; Mateus, E.P.; Altomari, P.; Astolfi, M.L.; Zanoni, R.; Ribeiro, A.B. & Pagnanelli, F. (2021). Nanostructured TiO<sub>2</sub>-based hydrogen evolution reaction (HER) electrocatalysts: A preliminary feasibility study in electrodialytic remediation with hydrogen recovery. Chapter 10. In: Alexandra B. Ribeiro, M.N.V. Prasad (Eds.), *Electrokinetic Remediation for Environmental Security and Sustainability*. John Wiley & Sons Ltd, pp. 227-250, ISBN: 978-1-119-67011-7.
2. Di Caprio F., Altomari P., Pagnanelli F. New strategies enhancing feasibility of microalgal cultivations - ch. 16 *Studies in Surface Science and Catalysis Volume 179*, 2019, Pages 2 87-316 in Elsevier book on "Catalysis, green chemistry and sustainable energy: new technologies for novel business opportunities" <https://doi.org/10.1016/B978-0-444-64337-7.00016-1>
3. Flavia C. S. M. Padoan, Pier Giorgio Schiavi, Ludovica Baldassari, Emanuela Moscardini, Luigi Toro, Pietro Altomari, Francesca Pagnanelli (2019) Chapter 14: Recovery of precious and critical raw materials from end of life photovoltaic panels (pages 281-296) in *Critical and Rare Earth Elements: Recovery from Secondary Resources*. A CRC Press Book Editors: Dr. Abhilash Prof. Ata Akcil ISBN-13: 978-0-367-08647-3
4. Pietro Altomari, Fabrizio Di Caprio, Francesca Pagnanelli (2018). Biosorption of copper by *Saccharomyces cerevisiae*: From Biomass Characterization to Process Development. Chapter 7, pag 205-223. In: Bonilla-Petriciolet A., Mendoza-Castillo D., Reynel-Ávila H. (eds) *Adsorption Processes for Water Treatment and Purification*. Springer, Cham ISBN 978-3-319-58135-4; DOI: 10.1007/978-3-319-58136-1
5. Pagnanelli, F. (2011). Equilibrium, kinetic and dynamic modelling of biosorption processes Chapter 4 in the Book "Microbial biosorption of metals" Kotrba, Pavel; Mackova, Martina; Macek, Tomas (Eds.) Springer, London ISBN: 978-94-007-0442-8
6. Pagnanelli F., De Michelis I., Di Tommaso M., Ferella F., Toro L., Vegliò F. (2008). Treatment of Acid Mine Drainage by A Combined Chemical/Biological Column Apparatus: Mechanisms of Heavy Metal Removal Chapter 1 in the Book *Causes and Effects of Heavy Metal Pollution* (ISBN: 978-1-60456-900-1) Editor: Mikel L. Sánchez, Nova Science Publishers, Inc.
7. Pagnanelli F. (2006). Equilibrium modelling of heavy metal sorption onto natural composite materials, Chapter 2 in the Book "Focus on Environmental Research" (ISBN: 1-59454-628-2) Editor: E. B. Davis, Nova Science Publishers, Inc.

#### E – Contributi in congressi con pubblicazione dei proceeding su volume con ISBN e/o online

1. Zanellato, G., Schiavi, P.G., Yamashita, Y., Altomari, P., Pagnanelli, F. (2021) Synthesis of copper nanostructured electrodes onto carbon paper for the catalytic electroreduction of CO<sub>2</sub>. *AIP Conference Proceedings*, 2416, art. no. 020005, *Nanoinnovation 2020 Conference and Exhibition*, 15-18 September 2020 2020, DOI: 10.1063/5.0069266
2. Di Caprio F., Altomari P., Pagnanelli F. (2021) Ultrasound-assisted extraction of carbohydrates from microalgae. *ICheAP15 International Conference on Chemical and Process Engineering*, Naples 23-26 May 2021 *Chemical Engineering Transactions*, 86, pp. 25-30. DOI: 10.3303/CET2186005

3. Schiavi P.G., Branchi M., Casalese E., Altimari P., Navarra M.A., Pagnanelli F. (2021) Resynthesis of NMC111 Cathodic Material from Real Waste Lithium Ion Batteries. ICheaP15 International Conference on Chemical and Process Engineering, Naples 23-26 May 2021 Chemical Engineering Transactions, 86, pp. 463-468 DOI: 10.3303/CET2186078
4. Zanellato G., Schiavi P.G., Rubino A., Altimari P., Pagnanelli F. (2021) Electrochemical pretreatments of carbon paper and their effect on the electrodeposition of metallic nanostructures, ICheaP15 International Conference on Chemical and Process Engineering, Naples 23-26 May 2021 Chemical Engineering Transactions, 84, 115-120, DOI:10.3303/CET2184020
5. Angeloni, L., Passeri, D., Schiavi, P.G., Pagnanelli, F., Rossi, M. (2020) Magnetic force microscopy characterization of cobalt nanoparticles: A preliminary study. AIP Conference Proceedings, 2257, art. no. 020005, 4th NanoInnovation 2019 - Conference and Exhibition, 11-14 June 2019, DOI: 10.1063/5.0023608
6. Rubino, A., Agostini, M., Schiavi, P.G., Altimari, P., Pagnanelli, F. (2020) TiO<sub>2</sub>nanotubes in lithium-ion batteries. AIP Conference Proceedings, 2257, art. no. 020006, 4th NanoInnovation 2019 - Conference and Exhibition, 11-14 June 2019 DOI: 10.1063/5.0023681
7. Schiavi, P.G., Branchi, M., Casalese, E., Rubino, A., Altimari, P., Navarra, M.A., Pagnanelli, F. (2020) Production of nanostructured electrodes from spent Lithium ion batteries and their application in new energy storage devices. AIP Conference Proceedings, 2257, art. no. 020007, 4th NanoInnovation 2019 - Conference and Exhibition, 11-14 June 2019, DOI: 10.1063/5.0023663
8. Schiavi, P.G., Farina, L., Rubino, A., Altimari, P., Navarra, M.A., Zanoni, R., Panero, S., Pagnanelli, F. (2019) Electrochemical synthesis of nanowires electrodes and their application in energy storage devices. AIP Conference Proceedings, 2145, art. no. 020012, 3rd NanoInnovation 2018-Conference and Exhibition, 11-14 September 2018, DOI: 10.1063/1.5123573
9. Rubino, A., Schiavi, P.G., Altimari, P., Pagnanelli, F. (2019) Ti/TiO<sub>2</sub>/Cu<sub>2</sub>O electrodes for photocatalytic applications: Synthesis and characterization. AIP Conference Proceedings, 2145, art. no. 020005, 3rd NanoInnovation 2018-Conference and Exhibition, 11-14 September 2018, DOI: 10.1063/1.5123566
10. Di Caprio F., Altimari P., Iaquaniello G., Toro L., Pagnanelli F. (2019) T. Obliquus Cultivation Under Heterotrophic Conditions: Determination of Growth Parameters. ICheaP14 - 14th International Congress on Chemical and Process Engineering 26-29 Maggio 2019, Bologna, Chemical Engineering Transactions, 74, 133-138. DOI: 10.3303/CET1974023
11. Rubino A., Schiavi P., Altimari P., Latini A., Pagnanelli F. (2019) Ti/TiO<sub>2</sub>/Cu<sub>2</sub>O Based Electrodes as Photocatalysts in Pec Cells, NINE 2019 3<sup>rd</sup> International Conference on Nanotechnology based innovative applications for the environment 14-17 April 2019 Naples. Chemical Engineering Transactions, 73, 73-78. DOI: 10.3303/CET1973013
12. Di Caprio F., Altimari P., Iaquaniello G., Toro L., Pagnanelli F. (2018) T. obliquus Mixotrophic Cultivation in Treated and Untreated Olive Mill Wastewater. IBIC2018 - International Conference on Industrial Biotechnology 15-18 Aprile 2018 Venezia. Chemical Engineering Transactions. 64: 625-630. DOI: 10.3303/CET1864105
13. Mazzelli A., Cicci A., Franceschini G., Di Caprio F., Iaquaniello G., Altimari P., Pagnanelli F., Toro L. (2018) Investigation of Effects of Nutrients and External Parameters on Kinetic Growth of Outdoor Microalgal Cultivation. IBIC2018 - International Conference on Industrial Biotechnology 15-18 Aprile 2018 Venezia. Chemical Engineering Transactions, 64: 691-696. DOI: 10.3303/CET1864116

14. Schiavi, P.G., Rubino, A., Altimari, P., Pagnanelli, F. (2018) Two electrodeposition strategies for the morphology-controlled synthesis of cobalt nanostructures. AIP Conference Proceedings, 1990, art. no. 020005, 2nd NanoInnovation 2017 Conference and Exhibition 26-29 September 2017, DOI: 10.1063/1.5047759
15. Pagnanelli F., Abo Atia T., Moscardini E., Altimari P., Padoan F.C., Toro L. (2017) Recycling of lithium ion batteries: mechanical and hydrometallurgical treatment towards zero-waste. Proceedings of the Sustainable Industrial Processing Summit & Exhibition SIPS 2017 (22-26 October 2017, Cancun, Mexico) Volume 7: Recycling, Secondary Batteries and Environmental Protection Id Paper: 331 ISBN:978-1-987820-73-7; ISSN:2291-1227
16. Pagnanelli F., Abo Atia T., Altimari P., Baldassari L., Moscardini E., Padoan F.C., Toro L. (2017) Pilot scale tests for recycling of photovoltaic panels by physical and chemical treatment. Proceedings of the Sustainable Industrial Processing Summit & Exhibition SIPS 2017 (22-26 October 2017, Cancun, Mexico) Volume 7: Recycling, Secondary Batteries and Environmental Protection Id Paper: 330, ISBN: 978-1-987820-73-7; ISSN: 2291-1227
17. Alguacil F.J., Pagnanelli F. (2016) Efficient recovery of copper from a copper converter dust via thin layer leaching and solvent extraction Proceedings of the Sustainable Industrial Processing Summit & Exhibition (SIPS 2016) 6-10 November 2016, Hainan-Island, China Volume 10, page 117-126 ISBN: 978-1-987820-54-6; ISSN: 2291-1227
18. Pagnanelli F., Moscardini E., Abo Atia T., Altimari P., Toro L. (2016) Physical and Chemical Treatment Of End Of Life Si-based And CdTe Photovoltaic Panels Proceedings of the Sustainable Industrial Processing Summit & Exhibition (SIPS 2016) 6-10 November 2016, Hainan-Island, China Volume 10, page 57-66 Edited by F. Kongoli, V. Kumar, K. Aifantis, F. Pagnanelli. ISBN: 978-1-987820-54-6; ISSN: 2291-1227
19. Yenial Ü, Pagnanelli F., Bulut G. (2017) Calcium ferrite nanoparticle production from Mining Wastes: Marble Dust And Pyrite Ash. 1-3 November 2017, Antalya, Turkey, Proceedings of the XVII. Balkan Mineral Processing Congress, ISBN: 978-975-7946-42-7, page 587-595
20. Visca A., Di Caprio F., Spinelli R., Altimari P., Cicci A., Iaquaniello G., Toro L., Pagnanelli F. (2017) Microalgae Cultivation for Lipids and Carbohydrates Production. ICheaP13 - 13th International Conference on Chemical and Process Engineering 28-31 Maggio 2017, Milano. Chemical Engineering Transactions Vol. 57: 127-132. ISBN 978-88-95608-48-8; ISSN 2283-9216 DOI 10.3303/CET1757022
21. Abo Atia T., Altimari P., Moscardini E., Pettiti I., Toro L., Pagnanelli F. (2016) Synthesis and Characterization of Copper Ferrite Magnetic Nanoparticles for Heavy Metal Removal From Aqueous Solution. Proceedings of the International Conference on Nanotechnology based innovative applications for the environment, 20-23 March 2016, Rome, Italy. Chemical Engineering Transactions n° 47, page 151-156 ISBN978-88-95608-38-9; ISSN2283-9216 DOI: 10.3303/CET1647026
22. Di Caprio F., Altimari P., Zanni E., Uccelletti D., Toro L., Pagnanelli F. (2016) Lanthanum biosorption by different Saccharomyces cereviseae strains. Proceedings of IBIC 2016 5th International Conference on Industrial Biotechnology 10-13 April 2016 - Bologna, Italy Chemical Engineering Transactions n° 49, 37-42, ISBN978-88-95608-40-2; ISSN2283-9216 DOI: 10.3303/CET1649007
23. Di Caprio F., Visca A., Altimari P., Toro L., Masciocchi B., Iaquaniello G., Pagnanelli F. (2016) Two-stage process of microalgae cultivation for starch and carotenoid production. Proceedings of IBIC 2016 5th International Conference on Industrial Biotechnology 10-13 April 2016 - Bologna, Italy Chemical Engineering Transactions n° 49, 415-420, ISBN978-88-95608-40-2; ISSN2283-9216 DOI: 10.3303/CET1649070

24. Amato A., Rocchetti L., Fonti V., Abo Atia T., Altimari P., Moscardini E., Toro L., Pagnanelli F., Beolchini F. (2016) Recovery of critical metals from LCDs and Li-Ion batteries. Proceedings of Electronics Goes Green 2016+ Berlin, 7-9 September 2016 ISBN: 978-1-5090-5208-0, DOI: 10.1109/EGG.2016.7829832
25. Pagnanelli F., Altimari P., Moscardini E., Abo Atia T., Toro L. (2015) First outcomes from PHOTOLIFE PROJECT: Process and automated pilot plant for simultaneous and integral recycling of different kinds of photovoltaic panels. Proceedings of the Sustainable Industrial Processing Summit & Exhibition (SIPS 2015) 4-9 October 2015, Antalya, Turkey. Volume 11: RECYCLING & ENVIRONMENTAL pages:67-80 (sips 15 7 48 FS) Edited by F. Kongoli, T. Havlik, F. Pagnanelli ISBN 978-1-987820-34-8, ISSN 2291 1227
26. Palo E., Pagnanelli F., Moscardini E., Salladini A., Baldassari L., Scalisi S., Iaquaniello G., Toro L. (2015) Development of an optimized process for recovery and reuse of spent membranes for hydrogen separation. Proceedings of the Sustainable Industrial Processing Summit & Exhibition (SIPS 2015) 4 - 9 October 2015, Antalya, Turkey Volume 11: RECYCLING & ENVIRONMENTAL, pages: 235-252 (sips 15 7 163 FS) Edited by F. Kongoli, T. Havlik, F. Pagnanelli ISBN 978-1-987820-34-8, ISSN 2291 1227
27. Di Caprio F., Altimari P., Toro L., Pagnanelli F. (2015) Effect of lipids and carbohydrates extraction on astaxanthin stability in Scenedesmus sp.. Icheap 15(International Conference on Chemical & Process Engineering. Milan 19-22 May 2015) Chemical Engineering Transactions, vol 43, pages 205-210. ISBN 978-88-95608-34-1; ISSN 2283-9216 DOI: 10.3303/CET1543035
28. Schiavi P.G., Altimari P., Pagnanelli F., Moscardini E., Toro L. (2015) Synthesis of Cobalt Nanoparticles by Electrodeposition onto Aluminum Foils. Icheap 15, International Conference on Chemical & Process Engineering, Milan 19-22 May 2015. Chemical Engineering Transactions, vol 43, pages 673-678 ISBN 978-88-95608-34-1; ISSN 2283-9216 DOI: 10.3303/CET1543113
29. Pagnanelli F., Moscardini E., Abo Atia T., Toro L. (2014) Photovoltaic panel recycling: from type-selective processes to flexible apparatus for simultaneous treatment of different types. Proceedings of the Shechtman International Symposium, 29 June - 04 July 2014 Sustainable Industrial Processing Summit Volume 4 (Recycling, Secondary Battery) pag. 279-294. ISBN CD Set: 978-1-987820-11-9, ISSN: 2291-1200
30. Altimari P., Di Caprio F., Toro L., Capriotti A.L., Pagnanelli F. (2014) Hydrogen photo-production by mixotrophic cultivation of Chlamydomonas reinhardtii: Interaction between organic carbon and nitrogen. IBIC 2014 - Industrial Biotechnology International Conference. Rome 8-11 June 2014 Chemical Engineering Transactions 38, 199-204. ISBN 978-88-95608-29-7; ISSN 2283-9216, DOI: 10.3303/CET1438034, DOI:10.3303/CET1438034
31. Altimari, P., Pagnanelli, F., Toro, L.(2013) Application of structured population balance model for the numerical simulation of a continuous photobioreactor. 11th International Conference on Chemical & Process Engineering 2-5 June 2013 - Milan, Italy. Chemical Engineering Transactions 32, pp. 1027-1032. ISBN978-88-95608-23-5, ISSN 1974-9791, DOI:10.3303/CET1332172
32. Cruz Viggi C., Pagnanelli F., Toro L. (2011) Sulphate reduction processes in biological permeable reactive barriers: column experimentation and modeling. Proceedings of ICheAP-10 - The Tenth International Conference on Chemical & Process Engineering Florence, Italy; 8-11 May 2011 Chemical Engineering Transactions, Volume 24, 1231-1236, ISBN 978-88-95608-15-0, DOI: 10.3303/CET1124206
33. Trabucco F., Cruz Viggi C., Pagnanelli F., Toro L. (2011) Development of an integrated process for bio-oil production from microalgae. Proceedings of ICheAP-10 - The Tenth International Conference on

34. Cruz Viggi C., Cibati A., Pagnanelli F., Toro L. (2010) Modelling of sulphate-reduction processes in biological permeable reactive barriers. XIIth International Mineral Processing Symposium, Nevşehir, Turchia, 6-8 Ottobre 2010 (ISBN 978-975-491-295-1 ISSN 1974-9791)
35. Granata G., Trabucco F., Moscardini E., Furlani G., Pagnanelli F. and Toro L. (2010) Process Analysis about valorization of spent lithium batteries. XIIth International Mineral Processing Symposium, Nevşehir, Turchia, 6-8 Ottobre 2010 (ISBN 978-975-491-295-1)
36. Cibati A., Cruz Viggi C., Pagnanelli F., Toro L. (2010) Innovative biosorbents from agro-industrial wastes. XIIth International Mineral Processing Symposium, Nevşehir, Turchia, 6-8 Ottobre 2010 (ISBN 978-975-491-295-1)
37. Cruz Viggi C., Pagnanelli F., Cibati A., Berteletti C., Toro L. (2009) Sulphate Reducing Bacteria for the treatment of heavy metals contaminated waters Advanced Materials Research, Volumi 71-73, 565-568 Proceedings of IBS09 –8th international biohydrometallurgy symposium Bariloche, Argentina 13-17 Settembre 2009 (ISBN: 978-0-87849-322-7)
38. Cruz Viggi C., Pagnanelli F., Sabattini M., Toro L. (2009) Inhibition of iron oxidizing bacteria involved in the generation of acid mine drainage Advanced Materials Research, Volumi 71-73, 681-684 (2009). Proceedings of IBS09 –8th international biohydrometallurgy symposium Bariloche, Argentina 13-17 Settembre 2009 (ISBN: 978-0-87849-322-7)
39. Cruz Viggi, C., Pagnanelli, F., Cibati, A., Berteletti, C., Toro, L. (2009) Biological treatment of heavy metals contaminated waters. The ninth Italian Conference on Chemical & Process Engineering. 10-13 May, 2009 Rome, Italy. Chemical Engineering Transactions Vol. 17, pag 203-208 (ISBN 978-88-95608-01-3) DOI: 10.3303/CET0917035
40. Moscardini E., Furlani G., Pagnanelli F., Ferella F., De Michelis I., Vegliò F., Beolchini F., Toro L. (2009) Process for the treatment of alkaline spent batteries. The ninth Italian Conference on Chemical & Process Engineering. 10-13 May, 2009 Rome, Italy. Chemical Engineering Transactions, Vol. 17, 281-286 (ISBN 978-88-95608-01-3) DOI: 10.3303/CET0917048
41. Granata, G., Moscardini, E., Furlani, G., Pagnanelli, F., Toro, L. (2009) Characterisation of automobile shredded residue. The ninth Italian Conference on Chemical & Process Engineering. 10-13 May, 2009 Rome, Italy. Chemical Engineering Transactions Vol. 17, 427-432 (ISBN 978-88-95608-01-3) DOI: 10.3303/CET0917072
42. Cruz Viggi, C., Pagnanelli, F., Cibati, A., Berteletti, C., Toro, L. (2009) Treatment of heavy metals contaminated waters by Sulphate Reducing Bacteria.The second International Conference on the Remediation of Polluted Sites. 13-15 May, 2009 Rome, Italy (ISBN 88-902263-0-7)
43. Cruz Viggi, C., Pagnanelli, F., Toro, L. (2008) Column experiments of biological treatment using sulphate reducing bacteria for the treatment of heavy metals polluted waters Proceeding of the 4th European Bioremediation Conference (3-6 Settembre 2008, Chania, Crete, Greece) ID32 Editors: Nicolas Kalogerakis, Fabio Fava, Steven A. Benwart (ISBN 978-960-8475-12-0)
44. Cruz Viggi C., Pagnanelli F., Mainelli S., Toro L. (2008) Valorisation of olive oil solid wastes for the development of new biosorbents for heavy metals Proceeding of the 4th European Bioremediation Conference (3-6 Settembre 2008, Chania, Crete, Greece) ID33 Editors: Nicolas Kalogerakis, Fabio Fava, Steven A. Benwart (ISBN 978-960-8475-12-0)

45. M. Di Tommaso, I. De Michelis, F. Ferella, F. Vegliò F., Pagnanelli, L. Toro, F. Beolchini(2006). Acid Mine Drainage remediation by a combined chemical/biological treatment:I chemical pretreatment. AMIREG 2nd International Conference in Advance in Mineral Resources Management and Environmental Geotechnology Crete, Greece, 25-27 September 2006 (ISBN 960892281X)
46. S. Di Muzio, I. De Michelis, C. Pantani, B. Bianco, F. Vegliò F., Pagnanelli, S. Mainelli. F. Beolchini (2006). Acid Mine Drainage remediation by a combined chemical/biological treatment: II - bioprecipitation by Sulphate Reducing Bacteria. AMIREG 2nd International Conference in Advance in Mineral Resources Management and Environmental Geotechnology Crete, Greece, 25-27 September 2006 (ISBN960892281X)
47. Pagnanelli F., Giuliano V., Cozza C., Abbruzzese C., Esposito M., Toro L. (2005) Integrated approach for heavy metal binding onto polluted soils: sequential extractions and nonelectrostatic surface complexation models for simulating mineral mixtures. The seventh Italian Conference on Chemical & Process Engineering. 15-18 May, 2005 Giardini Naxos, Italy. Chemical Engineering Transactions Vol. 6, 683-688. Editor: S. Pierucci (ISBN: 88-900775-7-3).
48. Mainelli S., Pagnanelli F., Beolchini F., Vegliò F., Toro L. (2005) Identification of active sites in heavy metal sorption onto natural matrices. The seventh Italian Conference on Chemical & Process Engineering. 15-18 May, 2005 Giardini Naxos, Italy. Chemical Engineering Transactions Vol. 6, 701-706. Editor: S. Pierucci (ISBN: 88-900775-7-3).
49. Pagnanelli F., Furlani G., Beolchini F., Vegliò F., Toro L. (2005) Leaching of low-grade manganese ores: effects of mineralogical composition and reagent types on the optimisation of the operative conditions. PRES'05 8th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction 15-18 May, 2005 Giardini Naxos, Italy. Chemical Engineering Transactions Vol. 7, 55-60. Editor: J. Klemes (ISBN: 88-900775-8-1).
50. Pagnanelli F., Mainelli S., Vegliò F., De Michelis I., Beolchini F., Toro L. (2005) Heavy Metal Removal onto Biomasses from Agricultural Wastes. In: Proceedings of the 16th International Biohydrometallurgy Symposium. IBS 2005. 25-29 september 2005. Cape Town, South Africa, Editors S.T.L. Harrison, D.E. Rawlings, J. Petersen pages 563-570 (ISBN/ISSN: 1-920051-17-1).
51. Beolchini F., Pagnanelli F., Ubaldini S., De Michelis I., Toro L., Vegliò F. (2005) Biooxidation of Gold-bearing Sulphide Ores: Gold Recovery by different Leaching treatments. In: Proceedings of the 16th International Biohydrometallurgy Symposium. IBS 2005. 25-29 september 2005. Cape Town, South Africa, Editors S.T.L. Harrison, D.E. Rawlings, J. Petersen pages 219-226 (ISBN/ISSN: 1-920051-17-1)
52. Mainelli S., Pagnanelli F., Toro L. (2004) Copper and cadmium biosorption onto solid wastes of olive oil production: effect of pH and metal competition. In: Global Symposium on Recycling, Waste Treatment, and Clean Technology. REWAS '04, 26–29 September, 2004 Madrid, Spain pages1437-1448 (ISBN 84-95520-03-6)
53. Pagnanelli F., Beolchini F., Toro L., Vegliò F. (2004) Equilibrium and dynamic modelling of lead and copper biosorption by *Sphaerotilus* *natans* free cells in batch and membrane reactors In: Global Symposium on Recycling, Waste Treatment, and Clean Technology. REWAS '04, 26–29 September 2004 Madrid, Spain pages 1297-1307 (ISBN 84-95520-03-6)
54. Giuliano V., Abbruzzese C., Pagnanelli F., Cozza C., EspositoM. (2004) A methodological study of land reclamation at an abandoned mining site in Italy. In: Global Symposium on Recycling, Waste Treatment, and Clean Technology. REWAS '04, 26–29 September 2004 Madrid, Spain page 2929 (ISBN 84-95520-03-6)

55. Pagnanelli F., Giuliano V., Abbruzzese C., Vegliò F., Toro L. (2004) Heavy metal pollution in a dismissed mining area: sequential extraction and equilibrium modelling. In: The 8th International Symposium on Environmental Issues and Waste Management in Energy and Mineral Production. SWEMP 2004, 17-20 may, 2004 Antalya, Turkey pages 493-498 (ISBN 975-6707-11-9)
56. Mainelli S., Pagnanelli F., De Angelis S., Vegliò F., Toro L. (2004) Heavy metal biosorption onto solid wastes of olive oil production. In: The 8th International Symposium on Environmental Issues and Waste Management in Energy and Mineral Production. SWEMP 2004, 17-20 may, 2004 Antalya, Turkey pages 541-545 (ISBN 975-6707-11-9)
57. Pagnanelli F., Mainelli S., Vegliò F., Toro L. (2004) Heavy metal biosorption onto different kinds of materials: comparison of acid-base properties and equilibrium adsorption capacities in different operating conditions 1st International Conference Advances in Mineral Resources Management and Environmental Geotechnology, Chania, Crete, Greece 7 - 9 June 2004 (ISBN 9608815304)
58. Vegliò F., Pagnanelli F., De Michelis I., Zanetti M., Toro L. (2004) Waste management in leaching processes to treat oxidised manganese ores: experimental results and process analysis. 1st International Conference Advances in Mineral Resources Management and Environmental Geotechnology, Chania, Crete, Greece 7 - 9 June 2004 (ISBN 9608815304)
59. Pagnanelli F.; Mainelli S.; De Michelis I.; Vegliò F.; Toro L. (2004) Biosorption of ionic species onto olive pomace: modelling competition effects Convegno GRICU 2004, Porto d'Ischia (Napoli) 12-15 settembre 2004 (ISBN 8887030804)
60. Pagnanelli F., Vegliò F., Toro L. (2003) Development of leaching process for Mn extraction using carbohydrates as reducing agents: kinetic model, operating condition optimisation and liquor leach purification. In: XXII International Mineral Processing Congress. IMPC 2003 28 Sept.- 3 Oct., 2003 Cape Town, South Africa pages 501-509 (ISBN 0 958 46092 2)
61. Vegliò F., Pagnanelli F., Ubaldini S., Toro L. (2003) Equilibrium models for biosorption in single and multi-metallic systems: a case- study by using several bio-sorbent materials. In: XXII International Mineral Processing Congress. IMPC 2003 28 Sept.- 3 Oct., 2003 Cape Town, South Africa pages 1673-1681 (ISBN 0 958 46092 2)
62. Pagnanelli F., Ubaldini S., Vegliò F., Toro L. (2003) Biosorption of heavy metals onto an olive pomace: adsorbent characterization and equilibrium modelling. In: 15th International Biohydrometallurgy Symposium. IBS 2003, 14-19 September, Athens, Greece pages 825-834 (ISBN 960-88415-2-6)
63. Vegliò F., Beolchini F., Pagnanelli F., Toro L. (2003) A methodological approach to investigate the pH effect on biosorption process: experimental and modeling procedures. In: 15th International Biohydrometallurgy Symposium. IBS 2003, 14-19 September, Athens, Greece pages 731-740 (ISBN 960-88415-2-6)
64. Pagnanelli F., Mainelli S., Centofanti M., Vegliò F., Toro, L. (2003) Biosorption of binary metal systems onto an olive pomace: equilibrium modelling. The sixth Italian Conference on Chemical and Process Engineering, Pisa, Italy, 8-11 giugno 2003. Chemical Engineering Transactions (Vol. 3, 1815-1820. Editor: S. Pierucci (ISBN: 88-900775-2-2)
65. Beolchini F., Pagnanelli F., Mosca L., Toro L., Vegliò F. (2003) Biosorption of heavy metals in membrane reactors. The sixth Italian Conference on Chemical and Process Engineering, Pisa, Italy, 8-11 June 2003. Chemical Engineering Transactions Vol. 3, 437-442. Editor: S. Pierucci (ISBN: 88-900775-2-2)

66. Esposito A., Del Borghi A., Pagnanelli F., Toro L., Vegliò F. (2001) Biosorption of copper and cadmium by *Sphaerotilus natans*: experimental and modeling study. The fifth Italian Conference on Chemical and Process Engineering ICheAP 5, Florence, Italy. Chemical Engineering Transactions Vol.1, 351.
67. Beolchini F., Barba D., Mosca L., Pagnanelli F., Vegliò F. (2001) Copper biosorption in a UF membrane reactor: simulation and modelling of pH and biomass concentration effects. The fifth Italian Conference on Chemical and Process Engineering ICheAP 5, Florence, Italy. Chemical Engineering Transactions Vol.2; 589
68. Pagnanelli F., Esposito A., Centofanti M., Vegliò F., Toro L. (2001) Mathematical models for an equilibrium study of heavy metal biosorption. The fifth Italian Conference on Chemical and Process Engineering ICheAP 5, Florence, Italy. Chemical Engineering Transactions Vol.1; 333.
69. Esposito A., Pagnanelli F., Beolchini F., Dovì V., Vegliò F. (2001) Cadmium and copper biosorption on *Sphaerotilus natans*: influence of pH and biomass concentration on the biosorption modeling. Process Metallurgy, International Biohydrometallurgy Symposium, Ouro Preto, Brazil, 11B, 89-97 (ISBN 0 444 506233)
70. Pagnanelli F., Beolchini F., Esposito A., Toro L., Vegliò F. (2001) Biosorption modeling in batch and membrane reactor systems: pH effect and chemico-physical degradation. Process Metallurgy, International Biohydrometallurgy Symposium, Ouro Preto, Brazil, 11B, 145-153 (ISBN 0 444 506233)
71. Pagnanelli F., Beolchini F., Esposito A., Toro L., Vegliò F. (2000) Biosorption of toxic metals: effect of pH, reversibility and comparison with kaolin as adsorbent material. Proceedings of the 8th International Mineral Processing Symposium, Antalya, Turkey Mineral Processing on the verge of the 21st century. Edited by Gülan Özbayoğlu, Çetin Hoşten, M. Ümit Atalay, Cahit Hiçyilmaz & İhsan Arol 563-568 (ISBN 90 5809 172 4)
72. Trifoni M., Pagnanelli F., Passariello B., Esposito M.A., Scoccia G., Mosca L., Vegliò F. (2000) Experimental evidences on the iron removal from kaolin by acid leaching. Proceedings of the 8th International Mineral Processing Symposium, Antalya, Turkey Mineral Processing on the verge of the 21st century. Edited by Gülan Özbayoğlu, Çetin Hoşten, M. Ümit Atalay, Cahit Hiçyilmaz & İhsan Arol 499-504 (ISBN 90 5809 172 4)
73. Beolchini F., Pagnanelli, F., Esposito A., Toro L., Vegliò F. (2000) Biosorption of toxic metals by free and immobilised biomass. "Treatment of wastewaters containing heavy metal compounds" organized by Cooperative research program Sfb 193 Berlin 127-152 (ISBN 3 7983 1828 X; ISSN 0941-8806)