

Candidate application to the ISGS Board of Directors

Prof. Sandra Helena PULCINELLI

Age: 65

Affiliation:

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PhD in Sciences from the São Paulo University (USP/1987): sandwich doctorate between the Institute of Physics and Chemistry of São Carlos (IFQSC/USP) and the "Laboratoire de Chimie du Solide de l'Université de Bordeaux I", France (1984-86), 1st of the modality financed by CNPq/Brazil. Associate professor (2001) and full professor (2011) in Physical Chemistry at the São Paulo State University (UNESP). Member of the CNPq's Chemistry Advisory Committee (CAQU) since 2020, board of directors of the Brazilian Crystallography Association since 2018 and Editorial Board of "Cerâmica" (SciELO). Network coordinator of "Rede Sol" (2000-08), involving 04 Brazilian and 04 French universities (CAPES/COFECUB: IQ/UNESP, IF/USP, IF/UFRGS and DF(Bauru)/UNESP in Brazil and LURE and LCSO/UP-Sud, ENSCI/U-Limoges, LMPM/U-Montpellier-II, LRRS/U-Bourgogne, France), president (and vice-president) of the Chemistry Post-Graduate Program at IQ/UNESP (2007-2013). Referee in several scientific journals and funding agencies, almost 250 articles published in indexed journals that received approximately 4400 citations (H = 35), a hundred full papers in conference proceedings and a dozen book chapters. Supervision of almost 75 post-graduate students nowadays working in universities or research institutions in Brazil and abroad. Recently, participated in a cooperation agreement between PETROBRAS and UNESP, which has contributed to the reduction of environmental risks in oil platforms. Currently, leads the Group of Physical-Chemistry of Materials and acts as principal researcher at the INCT "Advanced Eco-Efficient Technologies for Cementitious Products".

5 representative publications:

Chiavacci, L.A.; Lallo da Silva, B.; Correa, A.G.S.; Pulcinelli, S.H. *Control of the structure and of the release profile of biological active molecules from materials prepared via sol-gel*. J. Sol-Gel Science & Technology **101**(2022) 71-86.

Almeida, A.A.; Santos, R.M.M.; Alves-Rosa, M.A.; Pulcinelli, S.H.; John, V.M.; Santilli, C.V. *MgAl-Layered Double Hydroxide Nanoparticles as Smart Nanofillers To Control the Rheological*

Properties and the Residual Porosity of Cement-Based Materials. ACS Applied Nano Materials **5,6** (2022) 7896-7907.

Pochapski, D.J.; Carvalho dos Santos, C.; Leite, G.W.; Pulcinelli, S.H.; Santilli, C.V. *Zeta Potential and Colloidal Stability Predictions for Inorganic Nanoparticle Dispersions: Effects of Experimental Conditions and Electrokinetic Models on the Interpretation of Results.* Langmuir **37** (2021) 13379-13389.

De Santana, W.M.O.S.; Abramson, S.; Fini, R.; Caetano, B.L.; Ménager, C.; Pulcinelli, S.H.; Santilli, C.V. . *Ureasil-Polyether-CoFe₂O₄ Nanocomposites: Coupling a Drug Delivery System and Magnetic Hyperthermia.* ACS Applied Polymer Materials **3** (2021) 4837-4848.

Moris, C.H.A.A.; Alves-Rosa, M.; Freitas, F.G.; Martins, L.; Santilli, C.V.; Pulcinelli, S.H. *Liquid crystals as pore template for sulfated zirconia.* Colloids & Surfaces A **600** (2020) 124907-124916.

Statement of interest:

Experience in Condensed State Physics and Chemistry, with emphasis in Physical Chemistry of Soft Matter and Surfaces, working mainly in: sol-gel transition, nanomaterials based on SnO₂, ZrO₂ and ZnO, quantum dots, siloxane-polyether hybrids, rheological, spectroscopic, and diffractometric characterization of materials, including temporal resolution based on synchrotron radiation.