

Candidate application to the ISGS Board of Directors

Prof./Dr. Jun SHEN

Age: 55

Affiliation: Pohl Institute of Solid State Physics,
Tongji University, Shanghai, China

Address: 1239 Siping Road, Shanghai 200092,
China



CV with main research interests (no longer than 1/2 page)

Prof. Dr. SHEN Jun, male, born in 1967, who is now the Director of Pohl Institute of Solid State Physics, Tongji University, Shanghai, China, and also the Director of Shanghai Key Laboratory of Special Artificial Microstructure Materials and Technology, Deputy Director of the council of the branch of Sol-Gel, Chinese Ceramic Society.

The main research interests of Prof. SHEN are including preparation, investigation and application of sol-gel derived nanostructured porous solids and thin films, mainly silica and carbon based, focusing on the properties of optical, thermal and electrical. More than 400 scientific papers have been published, and more than 40 Chinese Patents had been granted.

Prof. SHEN is very active in the international and domestic scientific activities. He has been responsible for more than twenty national and international cooperative research projects in recent years, which include projects from Chinese National Natural Foundation, Chinese National Foundation for High Technology, Stiftung Volkswagen, etc. Organized or co-organized more than 10 international and domestic conferences.

Recently, Prof. SHEN devotes himself to the application of aerogels and aerogel composites in energy saving and environmental protection, such as super thermal insulations, solar cell technology, super capacitors, water and air purification, some of the materials are successfully realized industrialization.

5 representative publications

- 1) **Jun Shen***, Xiaoxue Zhang, Recent progress and applications of aerogels in China, *Journal of Sol-Gel Science and Technology*, <https://doi.org/10.1007/s10971-021-05639-2> (Invited Paper, Published online:28 Oct. 2021)
- 2) Chen Zhang, Xiaodong Wang, Hongqiang Wang, Xueling Wu, **Jun Shen***, A positive-negative alternate adsorption effect for capacitive deionization in nano-porous carbon aerogel electrodes to enhance desalination capacity. *DESALINATION*, 2019, 458: 45-53
- 3) Xiaodong Wang, Huiyue Zhao, Yixuan Su, Chen Zhang, Chen Feng, Qun Liu, **Jun Shen***,

Low-Temperature Preparation of Mechanically Robust and Contamination-Resistant Antireflective Coatings for Flexible Polymeric Glasses via Embedding of Silica Nanoparticles and HMDS Modification. **ACS APPLIED MATERIALS & INTERFACES**, 2019, 11(40): 37084-37093.

- 4) Guoqing Zu, Taiyo Shimizu, Kazuyoshi Kanamori, Yang Zhu, Ayaka Maeno, Hironori Kaji, **Jun Shen**, and Kazuki Nakanishi, Transparent, Superflexible Doubly CrossLinked Polyvinylpolymethylsiloxane Aerogel Superinsulators via Ambient Pressure Drying, **ACS Nano**, 2018, 12: 521–532
- 5) Guoqing Zu, **Jun Shen***, Liping Zou, Wenqin Wang, Ya Lian, Zhihua Zhang, and Ai Du, Nanoengineering Super Heat-Resistant, Strong Alumina Aerogels, **Chem. Mater.** 2013, 25, 4757–4764

Statement of interest

Based on my interests and specialties, if I could be a member of the ISGS Board, I would like to be committed to strengthening international exchange and cooperation on Sol-Gel science and technology, building a good link and bridge between academia and industry, and promoting the industrialization of sol-gel technology and related new materials.