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UK-CHINA amri
Advanced Materials Research Institute

Science Bridges China Research Profile

Name: **Yunlan Su**

Position: **Associate Professor**

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SUMMARY OF MY RELEVANT RESEARCH AREAS:

Confined crystallization of polymer and model compound such as normal alkanes
Controlled crystallization of biominerals by organic matrices

高分子及其模型化合物的受限结晶
有机质调控下的无机矿物结晶

Primary Research interests:

Focus on the basic research of crystallization of normal alkanes and biominerals:

- *crystallization of normal alkanes in confined geometry and their application in energy storage and phase change materials*
- *Controlled crystallization of calcium carbonate or hydroxyapatite with organic and polymeric additives*

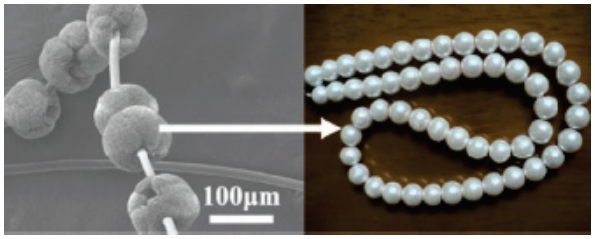
Topics in which you would like to develop collaborative research:

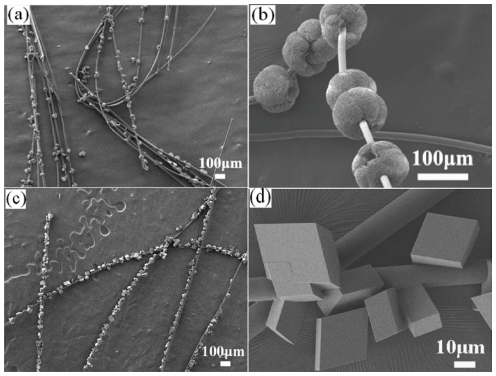
- **Confined crystallization of polymer and model compound**
- **Hydrogel/hydroxyapatite composite with high mechanical strength aiming for bone tissue engineering scaffold**
- **In-situ preparation of biominerals controlled by organic or polymeric matrices**

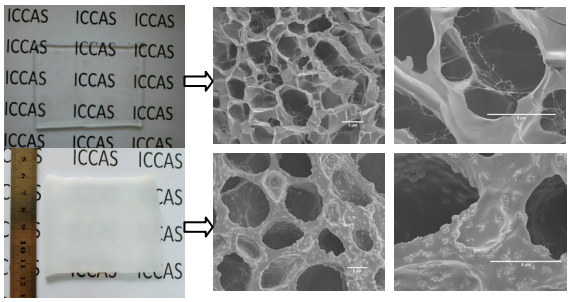
Relevant existing collaborations (academic/clinical/commercial) inside or outside China.

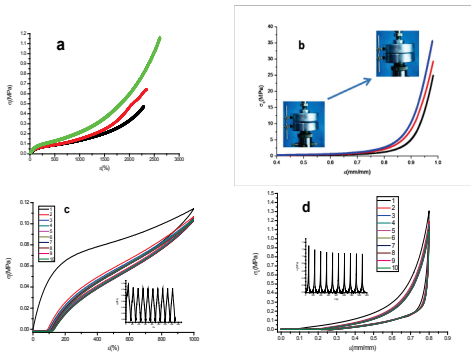
- Prof. Dr. Patrick Huber, Institute of Materials Physics and Technology, Hamburg University of Technology, German.
- Dr Nico A. J. M. Sommerdijk, Associate Professor, Laboratory of Materials and Interface Chemistry and Soft Matter CryoTEM Research Unit, Department of Chemical Engineering and Chemistry, Eindhoven University of Technology, Netherlands.

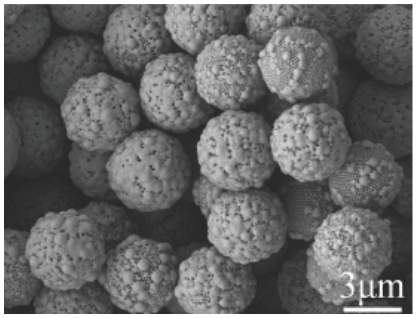
Relevant graphics, figures, pictures:

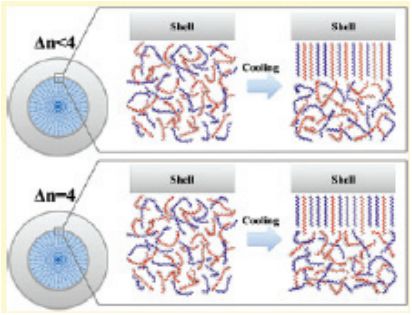












Publications and other outputs relevant to your interest in this programme

1. Controlled mineralization of calcium carbonate on the surface of nonpolar organic fibers, Jian Yang, Yuhai Liu, Tao Wen, Xiaoxiao Wei, Zhiyong Li, Yuanli Cai*, Yunlan Su,* and Dujin Wang, Cryst. Growth Des. 2012, 12, 29−32.
2. The preparation method and application of biodegradable organic/inorganic complex hydrogel with high mechanical strength , Zhiyong Li, Changcheng He, Huiliang Wang, Yunlan Su, Dujing Wang, Chinese patent application number 201110332093.4
3. Binary n-alkane mixtures from total miscibility to phase separation in microcapsules: enrichment of shorter component in surface, Dongsheng Fu, Yufeng Liu, Xia Gao, Yunlan Su,* Guoming Liu, and Dujin Wang*, J. Phys. Chem. B 2012, 116, 3099−3105.