Ren Su

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Personal info

DOB: 26.07.1983 Place of birth: Taiyuan (Shanxi, CHINA)

Nationality: Chinese Marital: Married

Education

08/2009 – 08/2012: PhD candidate, Interdisciplinary Nanoscience Center (iNANO), Aarhus University.

Title of Thesis *"TiO_2-Based Photocatalyst: from Synthesis and Characterisation to Optimisation and Design"*

09/2006 – 07/2008: Master, Department of Physics, Harbin Institute of Technology.

Title of Thesis *"Investigation on performance and mechanism of BaSrCoFeO cathode modified with Nano-structured silver"*

09/2002 – 07/2006: Bachelor, School of Chemistry, Harbin Institute of Technology.

Title of Thesis *"Pb & Cd free additive for Electroless Plating Ni-P"*

Professional career

08/2009 – present : **Postdoctoral researcher,** in the group of *Prof. Flemming Besenbacher* at Interdisciplinary Nanoscience Center (iNANO), Aarhus Universitet, Aarhus, Denmark. http://inano.au.dk/

07/2008 – 11/2008: **Product Engineer,** in the group of *Mr. Geld Qian* at ATOTECH (CHINA) Chemicals Ltd., Shanghai Qingpu Branch, China.

Others skills

Language skills: English (fluent in spoken and written)

Instrumental skills: BET, FT-IR, MS, SEM, TEM, TOF-SIMS, XPS, XRD, UV-vis.

IT Knowledge: LabView, Origin, AutoCAD, Illustrator, and Microsoft Office.

Academic Honors

05/2011: EFCATS scholarship for participating summer school;

09/2006 – 09/2007: Scholarship for master study;

07/2006: Outstanding Bachelor Thesis of HIT (Top 2%).

Research areas

05/2009 – present: Design, synthesis, and characterization of photocatalyst materials

09/2006 – 05/2009: Electrochemical deposition of metal nanoparticles

Student supervision

08/20012 – present: Project supervisor of one exchange PhD student from China

17-06-2013

Publications

[1] X. Wang, L. Sø, **R. Su,*** S. Wendt, P. Hald, M. A. H. Mamakhel, C. Yang, Y. Huang, B. B. Iversen, F. Besenbacher, The influence of crystallite size and crystallinity of anatase nanoparticles on the photo-degradation of phenol, *J. Catal.*, Accpeted, DOI: 10.1016/j.jcat.2013.04.022.

[2] **R. Su**, Z. Lü, S. P. Jiang, S. P. Jiang, K. F. Chen, W. H. Su. Ag decorated (Ba,Sr)(Co,Fe)O_3 cathodes for solid oxide fuel cells prepared by electroless silver deposition, *Int. J. Hydrogen. Energy*, 38 (2013), 2413-2420.

[3] **R. Su,** R. Bechstein, J. Kibsgaard, R.T. Vang, F. Besenbacher, High-quality Fe-doped TiO_2 films with superior visible-light performance, *J. Mater. Chem.*, 22 (2012), 23755-23758.

[4] **R. Su,** R. Tiruvalam, Q. He, N. Dimitratos, L. Kesavan, C. Hammond, J.A. Lopez-Sanchez, R. Bechstein, C.J. Kiely, G.J. Hutchings, F. Besenbacher, Promotion of Phenol Photodecomposition over TiO_2 Using Au, Pd, and Au–Pd Nanoparticles, *ACS Nano*, 6 (2012) 6284-6292.

[5] **R. Su,** R. Bechstein, L. Sø, R.T. Vang, M. Sillassen, B. Esbjörnsson, A. Palmqvist, F. Besenbacher, How the Anatase-to-Rutile Ratio Influences the Photoreactivity of TiO_2, *J. Phys. Chem. C*, 115 (2011) 24287-24292.

[6] **R. Su**, Z. Lü, K. F. Chen, N. Ai, S. Y. Li, B. Wei, W. H. Su, Novel in situ method (vacuum assisted electroless plating) modified porous cathode for solid oxide fuel cells, Electrochem. Commun. 10 (2008) 844-847.

[7] L. P. Kong, Z. Lü, B. Wei, X. Q. Huang, **R. Su**, W. H. Su, Improvement of $Ba_{0.5}Sr_{0.5}Zn_{0.2}Fe_{0.8}O_{3-\delta}$; Cathode for Intermediate-Temperature Solid Oxide Fuel Cells, The 216th ECS meeting.

[8] **R. Su,** N. Dimitratos, M. Jensen, R. Bechstein, H. Jensen, C.J. Kiely, G.J. Hutchings, F. Besenbacher, Highly Efficient Hydrogen Production with Au-Pd core-shell Nanoparticles Supported on TiO_2, Submitted.

[9] **R. Su,** M. Christensen, M. Sillassen, R.T. Vang, R. Bechstein, F. Besenbacher, Tailoring the orientation of titania photocatalyst for enhanced performance, in manuscript.

[10] **R. Su,** R.T. Vang, R. Bechstein, F. Besenbacher, Homogeneous metal oxide films synthesized by advanced Plasma Electrolytic Oxidation, in manuscript.

[11] D. L. Wang, **R. Su**, C. S. Dai, Lead-free and cadmium-free bright electroless nickel plating, Electroplating & Finishing. 2007 (01) 41-43.

Patents

[1] **R. Su**, Z. Lü, B. Wei, W. X. Zhu, S. Y. Li, K. F. Chen, W. H. Su, Vacuum assisted electroless/electro plating method for electrode modification, Chinese Patent, No. CN101232097.

Conferences

[1] **R. Su,** *et al*., Oral presentation "Influence of the metal nanoparticle decoration of TiO_2 on the photocatalytic phenol decomposition", XIth European Congress on Catalysis, Lyon, France, (2013);

[2] **R. Su,** *et al*., Poster "The effect of grain size and crystallinity of metal nanoparticles decorated anatase on the photocatalytic phenol decomposition", Faraday Discussion 162 Fabrication, Structure and Reactivity of Anchored Nanoparticles, Berlin, Germany, (2013);

[3] **R. Su,** *et al*., Poster "The impact of anatase:rutile ratio on the photo-reactivity of TiO_2", 2nd European symposium on photocatalysis, Bordeaux, France, (2011);

[4] **R. Su,** *et al*., Poster "The impact of anatase:rutile ratio on the photo-reactivity of TiO_2", Energy and materials from the sun, Kerkrade, The Netherlands, (2011); **Win poster award**

[5] **R. Su,** *et al*., Poster "Porous TiO_2 films with controllable anatase to rutile ratio for photocatalysis", SP-3 Conference, Glasgow, UK, (2010).