Academic Lecture

State Key Laboratory of Chemical Resource Engineering

Nanocrystalline perovskites, synthesis and properties in environmental catalysis

报告人：Prof. Sébastien Royer

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时间：2017-07- 12 (周三) 上午 8:30-10:00

地点：图书馆中心会议室

报告简介：

Knowledge on perovskite properties significantly progressed during the last 15 years, resulting in the widening of the perovskite uses for catalytic reactions. Recently, new routes of preparation were established to generate porous perovskites exhibiting improved textural properties. Amongst the proposed routes, some of them allow to produce materials having surface area exceeding 100 m^2 g^{-1}. Such nanocrystalline porous materials were evidenced to be highly efficient for catalytic reactions.

The objective of the presentation is to present the key advances in the synthesis and use of these new materials in heterogeneous catalytic processes related to environmental field. The presentation will first focus on advances in the synthesis of nanoscaled perovskite. Indeed, materials exhibiting exceptionally high accessible surface were obtained using engineered routes such as nonaqueous solvothermal route, reactive grinding, nanocasting, spray pyrolysis, etc. The obtaining of such nanostructured materials, exhibiting improved textural properties, ensures the production of materials with significantly improved catalytic properties.

报告人简介:

Sébastien Royer is tenured Professor at UCCS, Université de Lille and is also tenured Associate Professor at Department of Mining, Metallurgical and Materials Engineering, University Laval. He is Head of the research team « Catalytic Materials ». MATCAT research team is part of the UCCS Laboratory, and is constituted by 5 permanent researchers, 7 PhD students, 2 postdoctoral researchers and 1 technician. He has published 93 (including 5 reviews) scientific articles in international journal with refereeing process, 2 (+ 1 in edition) book chapter, 7 Congress proceedings, 1 nonscientific articles. The H factor is 27and the citation number is 2656. He also has gotten 2 patents and 14 Projects and industrial contracts, sent 42 Oral communication in congresses and 37 posters.

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