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Abstract

Fluoride materials for Advanced Technologies

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Abstract:

The rapid growth during the last decade has been accompanied by active construction, which in some instances neglected the impact on the environment and human activities. Policies to promote the rational use of electric energy and to preserve natural non-renewable resources are of paramount importance. Low energy design of urban environment and buildings in densely populated areas requires consideration of wide range of factors, including urban setting, transport planning, energy system design and architectural and engineering details. The focus of the world's attention on environmental issues in recent years has stimulated response in many countries, which have led to a closer examination of energy conservation strategies for conventional fossil fuels. One way of reducing building energy consumption is to design buildings, which are more economical in their use of energy for heating, lighting, cooling, ventilation and hot water supply. However, exploitation of renewable energy in buildings and agricultural greenhouses can, also, significantly contribute towards reducing dependency on fossil fuels. This will also contribute to the amelioration of environmental conditions by replacing conventional fuels with renewable energies that produce no air pollution or greenhouse gases. This study describes various designs of low energy buildings. It also, outlines the effect of dense urban building nature on energy consumption, and its contribution to climate change. Measures, which would help to save energy in buildings, are also presented.

Biography:

Alain TRESSAUD is CNRS Research Director (Emeritus) at ICMCB, Bordeaux, France. He is presently Vice-President of the European Academy of Sciences, after being the President (2017-18). He is member of several other European Academy of Sciences. His scientific interest covers various fields, e.g. synthesis, physical chemical characterizations, applications in fluorine chemistry, solid state chemistry & materials sciences. His works also deal with surface modification of materials and intercalation chemistry. His scientific production includes more

than 370 papers in international journals, 25 chapter contributions in books and 12 internationalized patents. In addition, he edited 12 books including the Editor-in-Chief responsibility of the book series "Advances in Fluorine Science" (2006-2008), and "Progress in Fluorine Science",(2016-2019) at Elsevier. He founded and chaired until 2008 the French Network on Fluorine Chemistry, sponsored by CNRS. He received several International awards: 2008-Nuclear Energy Agency Award of French Academy of Sciences, 2011- ACS Fluorine Award, International Henri Moissan Prize (2012), 2019-Fray International Sustainability Award. Recently a Symposium was held in his honor: - "Tressaud International Symposium on Solid State Chemistry for Applications and Sustainable Development", at Sustainable Industrial Processing Summit, Cyprus, (Oct. 2019).

Publication of speakers:

- Energy, environment and sustainable development
- Journal of renewable and Sustainable Energy, 2009
- Ground-source heat pumps systems and applications
- Renewable and sustainable energy reviews, 2008 - Elsevier
- Renewable building energy systems and passive human comfort solutions
- Green energies and the environment

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