Editorial

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Biographical notes: X.Q. Liu received his Master's in Environment Engineering from School of Environmental and Resource of Shan'xi University in 2008; and PhD in Environment Engineering from Department of Environment Science and Engineering of Fudan University in 2012. Currently, he is a Full Professor in the Department of Environment Science and Engineering of Fudan University. He research interests include Environmental pollution and assessment, environmental protection and sustainable development.

Sufficient, stable, affordable, and safe energy is vital for global wellbeing given its tremendous impact on economic growth, competitiveness, industrial production, the environment, human health, and security. Many key measures have been thought to transform the energy system into a more sustainable one, but energy efficiency is one of the most powerful, being called 'the invisible power' and 'the most universally available source of energy'. In an effort to address climate change, the Paris Agreement COP21 announced nationally determined contributions (NDCs) where energy efficiency measures are essential to achieve needed lower emissions.

This special issue aims to highlight the current challenges and trends in the energy sector, with a special focus set on innovative energy efficiency measures and policies. The opportunities offered by each economic sector of a national economy for energy efficiency improvements, the actual perspectives on the energy crisis, the future of renewable energy as a safe and reliable energy source, the challenges of new energy policies, the role of traditional energy sources for a sustainable future, and the recent advances in energy efficiency standards are topics which are particularly encouraged.