1. Record Nr. UNINA9910372786003321

Autore	Okubo Masaaki
Titolo	Plasma Processes for Renewable Energy Technologies
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2020
ISBN	3-03921-973-1
Descrizione fisica	1 electronic resource (118 p.)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

Sommario/riassunto

The use of renewable energy is an effective solution for the prevention of global warming. On the other hand, environmental plasmas are one of powerful means to solve global environmental problems on nitrogen oxides, (NOx), sulfur oxides (SOx), particulate matter (PM), volatile organic compounds (VOC), and carbon dioxides (CO2) in the atmosphere. By combining both technologies, we can develop an extremely effective environmental improvement technology. Based on this background, a Special Issue of the journal Energies on plasma processes for renewable energy technologies is planned. On the issue, we focus on environment plasma technologies that can effectively utilize renewable electric energy sources, such as photovoltaic power generation, biofuel power generation, wind turbine power generation, etc. However, any latest research results on plasma environmental improvement processes are welcome for submission. We are looking, among others, for papers on the following technical subjects in which either plasma can use renewable energy sources or can be used for renewable energy technologies: Plasma decomposition technology of harmful gases, such as the plasma denitrification method; Plasma removal technology of harmful particles, such as electrostatic precipitation; Plasma decomposition technology of harmful substances in liquid, such as gas–liquid interfacial plasma; Plasma-enhanced flow induction and heat transfer enhancement technologies, such as ionic wind device and plasma actuator; Plasma-enhanced combustion and

fuel reforming; Other environment plasma technologies.