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Plasma Gasification of Plastic Debris as a Method of the World Ocean Cleaning PHILIP RUTBERG, VADIM KUZNETSOV, VICTOR POPOV, ALEXANDER BRATSEV, ALEXANDER UFIMTSEV, SERGEY SHTENGEL, IRINA KUMKOVA, Institute for Electrophysics and Electric Power, Russian Academy of Sciences — The paper deals with treatment of plastic debris, polluting the world ocean, in a plasma downdraft gasifier. The calculated data on syngas composition and its specific yield depending on raw material moisture and energy consumption are presented. The usability estimation of the produced syngas application for electricity generation and liquid fuel production is performed.

Philip Rutberg
Institute for Electrophysics and Electric Power,
Russian Academy of Sciences

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