

Method of deactivation of endocrine active compounds from aqueous solutions

About the solution

The invention concerns a method for deactivating endocrine-disrupting compounds (EDCs) in aqueous solutions using non-thermal atmospheric plasma generated by modulated glow discharges.

The process enables the degradation of mixtures containing up to seven different EDCs in a continuous flow reactor, without the need for plasma-forming gases.

The technology effectively neutralizes compounds such as bisphenols, steroids, and phenols, significantly reducing their environmental and health impact.

It is characterized by low operating costs, high efficiency, and compatibility with wastewater treatment systems.

IP Protection

The invention is protected by the Polish Patent Office under the following number: **Pat.247729**

Implementation progress

TRL 4 –Technology validated in laboratory conditions



TRL 4

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Applications

- Treatment of wastewater containing endocrine-disrupting compounds,
- Pharmaceutical, chemical, and agri-food industries,
- Water purification and environmental protection systems.

Cooperation opportunities

- Joint research on process optimization and scaling,
- Licensing of the technology for industrial use,
- Partnership in implementation at wastewater treatment plants.