

Properties

Title:

Plasma sensor

-Technology profile

-OFFER from Germany, reference: TODE20190108001, valid from 08-01-2019 untill 10-01-2020

Created:

10 januari 2019 (2 weken geleden)

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General information

Reference:

TODE20190108001

Profile type

Technology offer

Country of origin:

Germany

Deleted

Nee

Status:

Update

Start date:

8 januari 2019 (3 weken geleden)

End date:

10 januari 2020

Technologic information profile

Title:

Plasma sensor

Description:

Plasmas are used in many technical fields. For instance, plasma assisted technologies are used to modify, clean or coat surfaces. It is essential for the quality of such a process to know the plasma state. Here, the plasma parameters are not only measured, but also used for the control of the process. Existing methods do not meet all of the industrial requirements and are complex and costly.

A German university offers a new solution with optimised features. The novel plasma sensor is based on the so-

called active plasma resonance spectroscopy, whereby the sensor itself is flush-mounted in the wall of the reactor and thus does not affect the process. An integrated balun allows the sensor to be powered by a simple coaxial cable.

The plasma sensor can be used in most industrial plasma processes as long as no conductive layers are deposited. The sensor can measure the plasma parameters, in particular the plasma electron frequency, and provide the values for an active control and thus significantly improve the quality of the process. Since the sensor is integrated into the reactor wall, no great technical effort for installation is necessary.

Industrial licensees active in surface treatment are sought. The partner should contribute to develop the technology further and implement it.

Technologie keywords

_ Industrial Manufactor

_ Measurement Tools

Languages

_ English

_ German

Exploitations

_ Private (in-house) research

More information

Plus Value:

Due to the innovative active plasma resonance spectroscopy basis the plasma sensor meets more industrial requirements than conventional technologies. It is characterized by the following advantages:

- Simple setup
- Easy installation in existing systems
- Robust
- More cost-efficient
- Minimal influence on the plasma
- Insensitive against additional dielectric coatings during process monitoring
- Can be integrated into plasma control
- High-temperature resistant realization is possible

IPR Status:

Patent(s) applied for but not yet granted

EOI Status:

Yes

Experience:

Organisation

Type of organisation:

Since:

0

Type and Size:

University

Transnational

Ja

Turnover:

Collaboration

Technical Specification or Expertise Sought:

pppThe university offers interested companies the opportunity to license and develop the technology. Right now functionality has been proven. Industrial partners could be involved in coating or anticorrosion applications or any sector dealing with plasma processes.ppp

Partnerships

_License agreement

Uitgevoerd door:



In opdracht van:



Ministerie van Economische Zaken



Ministerie van Buitenlandse Zaken

