

CYRANNUS®

waste gas abatement



R&D100 Award 2003



Young Female
Entrepreneur Award
2000

„Aus den praktischen
Erfahrungen mit den
Hidden Champions lernte
ich mehr über
Management als in zwei
Jahrzehnten
wissenschaftlicher
Forschung“

Prof. Simon (founder of
Simon, Kucher & Partners)

CYRANNUS®
cylindrical
resonator with
annular slots

int. patents approved or
pending, e.g.

EP 97906173

EP 98928283

EP 0872164

US 6204603 B1

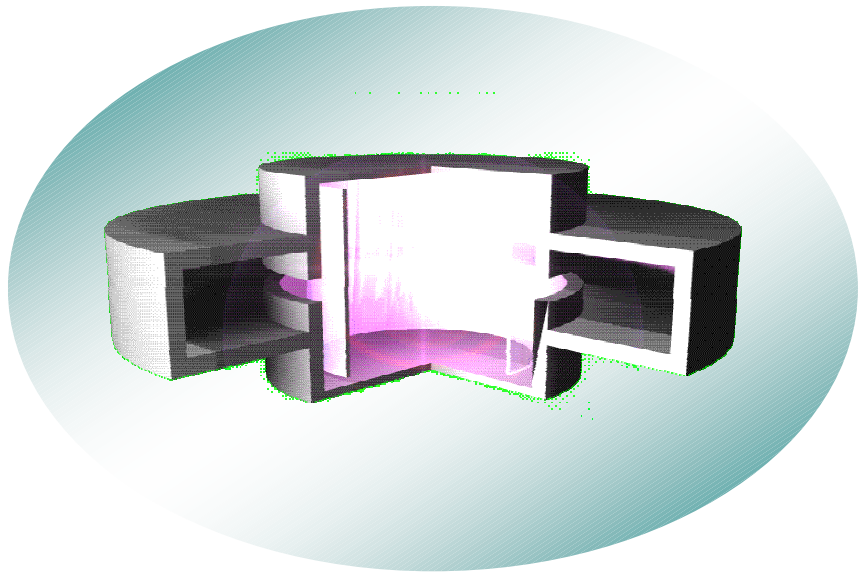
US 6198224

US 6543380

JP 531466

JP 524812

ambient pressure plasma
cracking of chemical compounds
or toxic waste



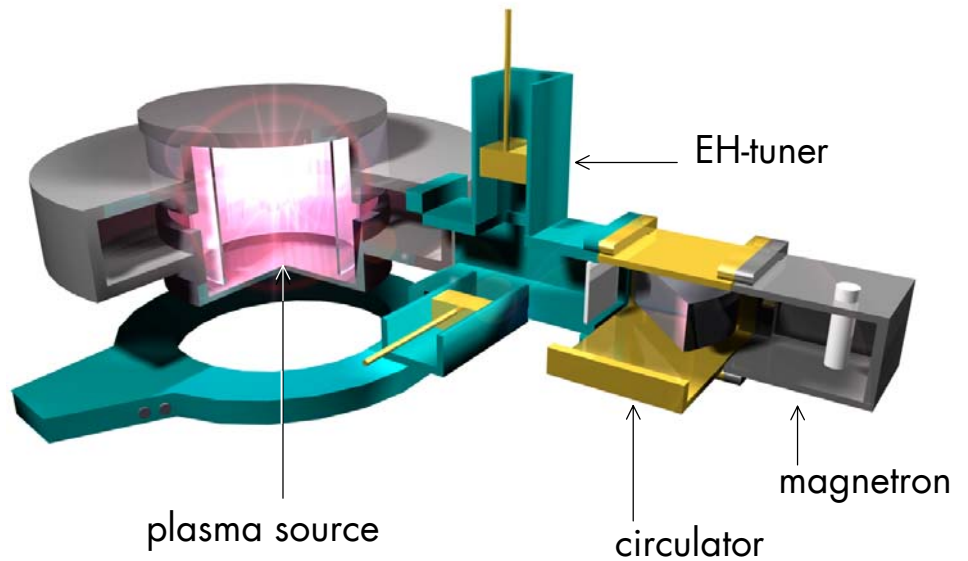
CYRANNUS® technology

Plasma easy to apply!

CYRANNUS[®] plasma sources

CYRANNUS[®] plasma sources are devices for generating plasmas with advantageous properties. Reliability and flexibility make them a valuable tool which represents a new **technology platform**.

equipment



performance

- arbitrary process gas
- up to ambient pressure
- spatial homogeneous
- high gasflow possible
- stationary plasma
- no electrodes
- short processing time
- low production cost
- good treatment quality

plasma chemical cracking

CYRANNUS[®] plasmas are able to crack chemical compounds at atmospheric pressure with high efficiency. Volume flows of **more than 100m³/h** are possible.

process

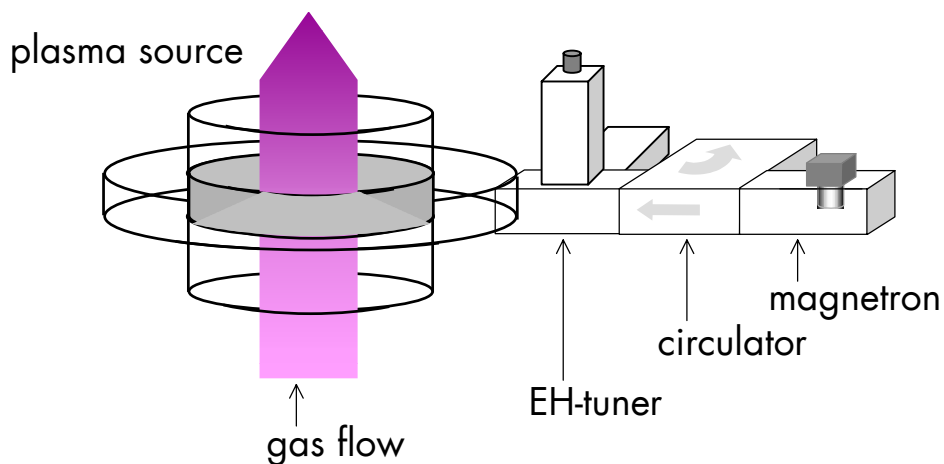
cracking of chemical bondings with direct microwave plasma treatment / electron induced reactions produce small chemical compounds with high reactivity and absorption in wet scrubber

chemistry

chemical compounds have to be tested individually

volume

gas flow up to 100m³/h at ambient pressure (depending on chemical reaction)



- dissociation of large / stable molecules
- recombination / reaction to small compounds
- fast absorption in scrubber for removal

plasma system

- plasma source** CYRANNUS® plasma generation in different size from high vacuum to ambient pressure
- microwave** 2,45 GHz, 6kW continuous wave / or up to 100kW at 915MHz / optimised efficiency by auto-tuner
- tuner** automated EH tuning element controlled by PLC
different working modes for easy operation
- automation** PLC Simatic* S7
field bus Profibus*
process parameters displayed on screen
process documentation module (optional)
- safety** multiple secured safety circuits
interlocks by hardware and PLC
CE conformity

* trademark by Siemens AG



For further questions please contact:

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