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(54) **DEVICE FOR CLEANING CVD DEVICE AND METHOD OF CLEANING CVD DEVICE**

VORRICHTUNG UND VERFAHREN ZUR REINIGUNG EINER CVD-ANLAGE

DISPOSITIF ET PROCEDE DE NETTOYAGE D'UN DISPOSITIF DE DEPOT CHIMIQUE EN PHASE VAPEUR

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(56) References cited:
EP-A- 1 028 175 **WO-A-02/090615**

JP-A- 6 318 579 **JP-A- 8 176 828**
JP-A- 8 296 045 **JP-A- 2000 235 955**
JP-A- 2001 174 437 **JP-A- 2002 280 376**
JP-A- 2002 517 740

- **M. NAKAMURA, K. HINO, T. SASAKI, Y. SHIOKAWA:** "In situ analysis of perfluoro compounds in semiconductor process exhaust: use of Li1 ion-attachment mass spectroscopy" **J. VA. SCI. TECHNOL.**, vol. 19, no. 4, July 2001 (2001-07), pages 1105-1110,