THIN TUNGSTEN AND TUNGSTEN OXIDE FILMS PRODUCED BY TUNGSTEN PENTACARBONYLE PENTYLISONITRILE IN A REMOTE PLASMA REACTOR

F. Hamelmann, A. Brechling, A. Aschentrup, U. Heinzmann, P. Jutzi*, J. Sandrock**, U. Siemeling**

Universitaet Bielefeld, Fakultaet fuer Physik, D-33615 Bielefeld, Germany.
*Universitaet Bielefeld, Fakultaet fuer Chemie, D-33615 Bielefeld, Germany.
**Universitaet Kassel, D-34132 Kassel, Germany.
Tel: +49-521-106-5471
Fax: +49-521-106-6001
E-mail: hamelman@physik.uni-bielefeld.de

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Tungsten pentacarbonyle pentylisonitrile $C_5H_{11}NCW(CO)_5$ is an interesting alternative for the commonly used tungsten hexacarbonyle $W(CO)_6$. It is liquid at room temperature, offers sufficient volatility and stability to air and water.

In this paper we present tungsten and tungsten oxide films deposited by plasma enhanced CVD at low substrate temperatures in a remote plasma reactor with an in-situ x-ray reflectivity measurement for film growth control. Different gases were used for the plasma (oxygen, hydrogen, nitrogen), the resulting films are analysed by auger electron spectroscopy and X-ray diffraction.