

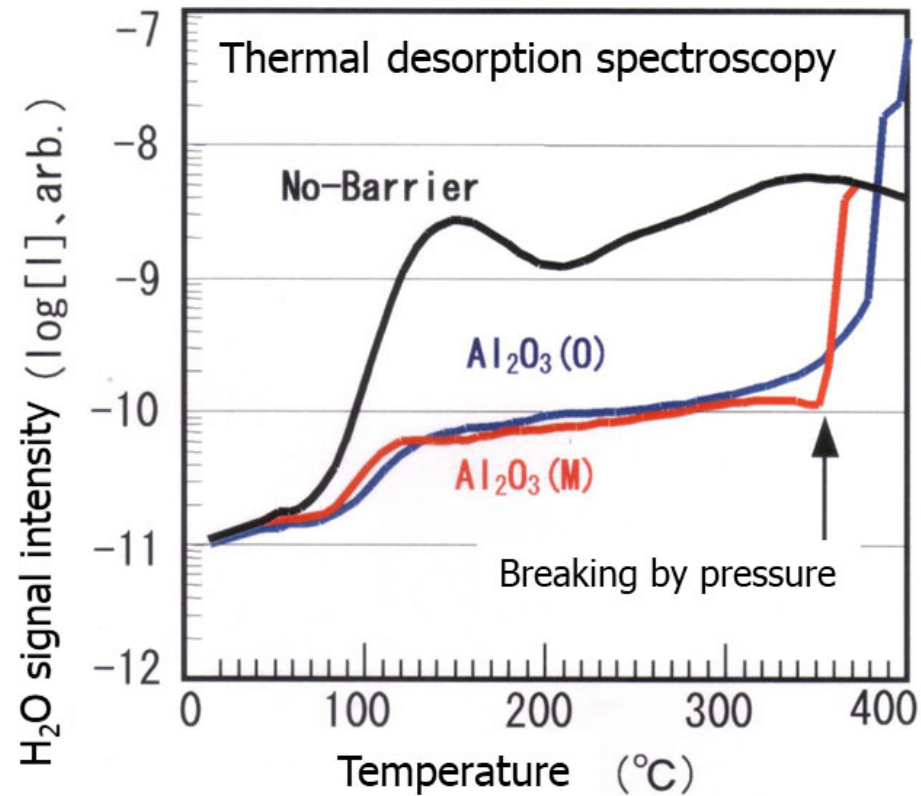
ECR薄膜のバリア特性

Barrier Properties of ECR Films



ECR-Al₂O₃膜の水分バリア性能

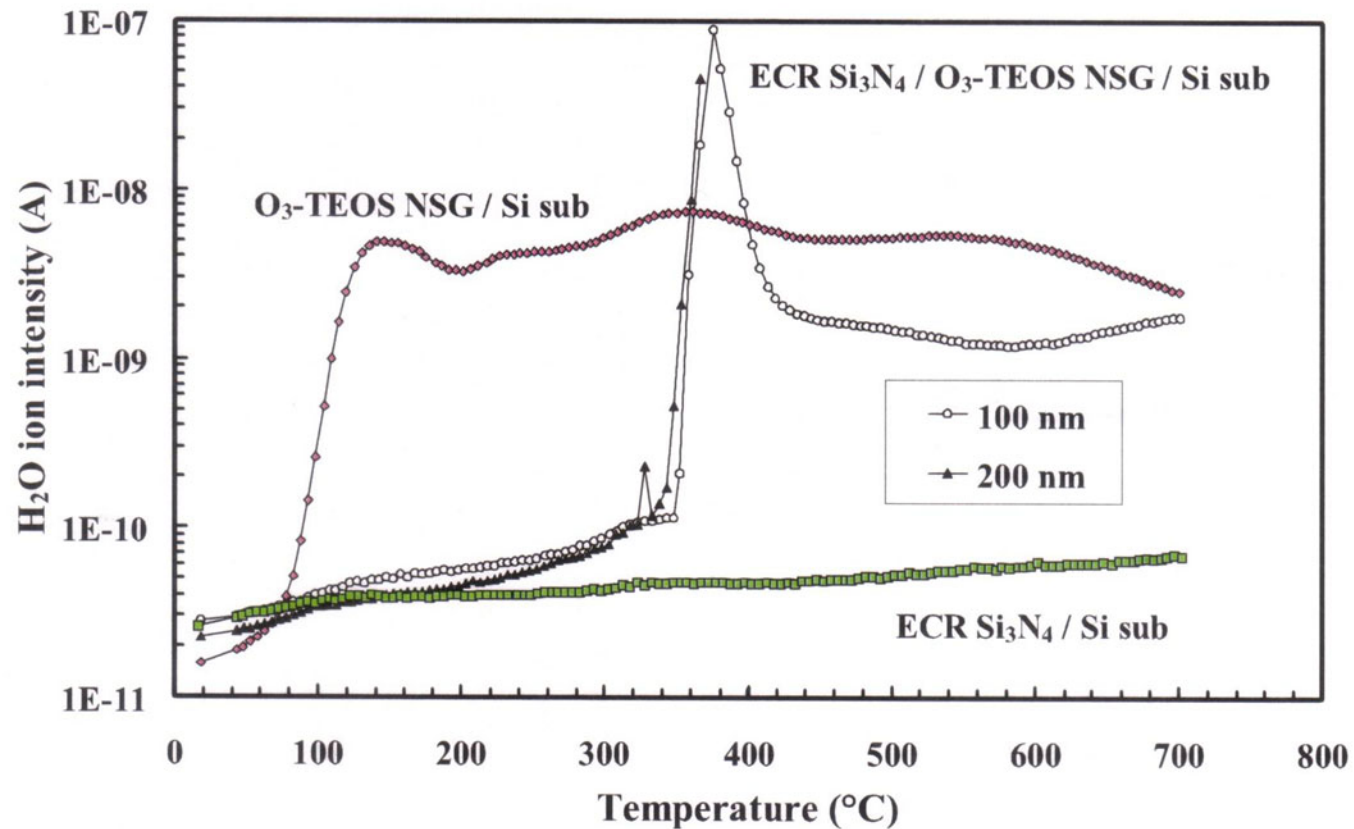
Barrier Properties of ECR-Al₂O₃ Films for Water



Samples: ECR-Al₂O₃ films (10 nm) on TEOS-SiO₂ films (water including)

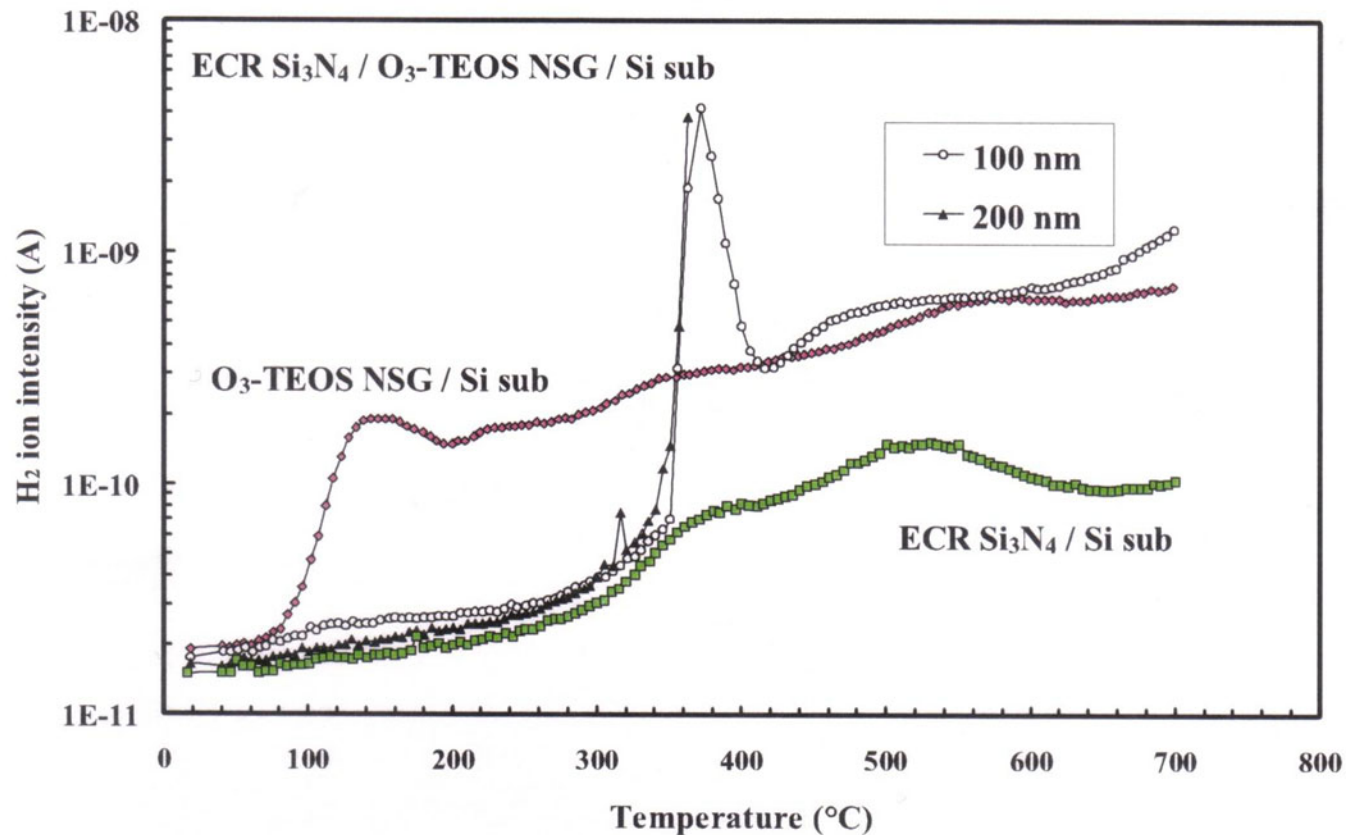
ECR-SiN膜の水分バリア性能

Barrier Properties of ECR-SiN Films for Water



ECR-SiN膜の水素バリア性能

Barrier Properties of ECR-SiN Films for Hydrogen



ECR薄膜の水蒸気透過度

Water Vapor Transmission Rate of ECR Films

Deposition type	Film materials	Thickness (nm)	WVTR (g/m ² ·day)	WVTR coefficient (g·cm/cm ² ·s·cmHg)
Sputtering	SiN	50	<0.01	<4.8E-14
Sputtering	SiN	20	0.02	9.55E-14
Sputtering	SiO ₂	20	0.07	3.83E-13
CVD	SiN	200	<0.02	-

MOCON measurement

Method: JIS K7129 B

System: PERMATRAN (MOCON, Inc.)

Conditions: 40°C, 90%RH

Limit of measurements: 0.01-0.02 (g/m²day)