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(21) International Application Number: ✓ PCT/US96/20165 (22) International Filing Date: ✓ 17 December 1996 (17.12.96) (30) Priority Data: 08/587,874 ✓ 11 January 1996 (11.01.96) US (71) Applicant: HOECHST CELANESE CORPORATION [US/US]; Route 202-206 North, Somerville, NJ 08876 (US). (72) Inventors: RAHMAN, M., Dalil; 62 Concord Ridge Road, Flemington, NJ 08822 (US). AUBIN, Daniel, P.; 202 Congdon Road, Voluntown, CT 06384 (US). KOKINDA, Elaine, G.; 9 Cumberland Road, Somerville, NJ 08876 (US). DURHAM, Dana, L.; 41 Copper Penny Road, Flemington, NJ 08822 (US). (74) Agents: SAYKO, Andrew, F., Jr. et al.; Hoechst Celanese Corporation, 70 Meister Avenue, Somerville, NJ 08876 (US).		(81) Designated States: CN, JP, KR, SG, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
(54) Title: ACIDIC ION EXCHANGE RESIN AS A CATALYST TO SYNTHESIZE A NOVOLAK RESIN AND PHOTORESIST COMPOSITION THEREFROM (57) Abstract The present invention provides methods for producing water insoluble, aqueous alkali soluble novolak resins having consistent molecular weight and a very low level of metal ions, utilizing a solid acid condensation catalyst. A method is also provided for producing photoresist composition having a very low level of metal ions from such novolak resins and for producing semiconductor devices using such photoresist compositions.		