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(21) International Application Number: PCT/US97/15142 (22) International Filing Date: 28 August 1997 (28.08.97) (30) Priority Data: 08/711,838 10 September 1996 (10.09.96) US 08/834,677 1 April 1997 (01.04.97) US (71) Applicant: THE DOW CHEMICAL COMPANY [US/US]; 2030 Dow Center, Midland, MI 48674 (US). (72) Inventors: GODSCHALK, James, P.; 2205 Plymouth Street, Midland, MI 48642 (US); ROMER, Duane, R.; 4025 Lowell Court, Midland, MI 48642 (US); SO, Ying, Hung; 1524 Dilloway Drive, Midland, MI 48640 (US); LYSENKO, Zenon; 214 West Meadowbrook Drive, Midland, MI 48640 (US); MILLS, Michael, E.; 1604 Avalon Street, Midland, MI 48642 (US); BUSKE, Gary, R.; 613 Sylvan Lane, Midland, MI 48640 (US); TOWNSEND, Paul, H., III; 102 Willard Street, Midland, MI 48642 (US); SMITH, Dennis, W., Jr.; 4607 Pleasant Trail, Fresno, TX 77545 (US). MARTIN, Steven, J.; 3019 Scarborough Lane, Midland, MI 48640 (US); DEVRIES, Robert, A.; 2408 Greenbrier Terrace, Midland, MI 48642 (US).		(74) Agent: DAMOCLES, Nemia, C.; Patent Dept., P.O. Box 1967, Midland, MI 48641-1967 (US). (81) Designated States: IL, JP, KR, NO, 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>
(54) Title: POLYPHENYLENE OLIGOMERS AND POLYMERS (57) Abstract An oligomer, uncured polymer or cured polymer comprising the reaction product of one or more polyfunctional compounds containing two or more cyclopentadienone groups and at least one polyfunctional compound containing two or more aromatic acetylene groups wherein at least some of the polyfunctional compounds contain three or more reactive groups. Such oligomers and uncured polymers may be cured to form cured polymers which are useful as dielectrics in the microelectronics industry, especially for dielectrics in integrated circuits.		