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(21) International Application Number: PCT/US99/11835 (22) International Filing Date: 27 May 1999 (27.05.99) (30) Priority Data: 09/134,408 14 August 1998 (14.08.98) US (71) Applicant: GENERAL ELECTRIC COMPANY [US/US]; 1 River Road, Schenectady, NY 12345 (US). (72) Inventors: HAITKO, Deborah, Ann; 1041 Lexington Avenue, Schenectady, NY 12309 (US). GRADE, Marsha, Mottel; 937 Meadow Lane, Schenectady, NY 12309 (US). LONGLEY, Kathryn, Lynn; 39 Trottingham Road, Saratoga Springs, NY 12866 (US). COLBORN, Robert, Edgar; 905 Vrooman Avenue, Schenectady, NY 12309 (US). (74) Agents: SNYDER, Bernard et al.; General Electric Company, 3135 Easton Turnpike W3C, Fairfield, CT 06431 (US).		(81) Designated States: BR, CN, JP, KR, SG, ZA, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>

(54) Title: PHOSPHINE LIGAND PROMOTED SYNTHESIS OF TETRAARYLOXYALKANE AND DIARYLCARBONATES

(57) Abstract

Addition of phosphine ligands can produce high yields of tetraphenoxymethane, TPM, and diphenylcarbonate, DPC, in short reaction times and improved reaction rates by a copper-induced condensation of phenol and carbon disulfide, CS₂. Either aromatic or aliphatic substituted phosphine ligands can be employed. The copper (I) oxide utilization is significantly improved in reactions containing phosphine ligands, such that yields exceeding 100 % tetraphenoxymethane are observed. Some of the sulfur-containing byproduct is transferred to the phosphine in the form of phosphine sulfide.

