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(71) Applicant *(for all designated States except US)*: **ADVANCED MICRO DEVICES, INC.** [US/US]; One AMD Place, Mail Stop 68, Sunnyvale, CA 94088-3453 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **SUN, Sey-Ping** [US/US]; 724 Jefferson Blvd., Apartment 724, Fishkill, NY 12524 (US). **BROWN, David, E.** [US/US]; 40 Patricia Drive, Pleasant Valley, NY 12569 (US).

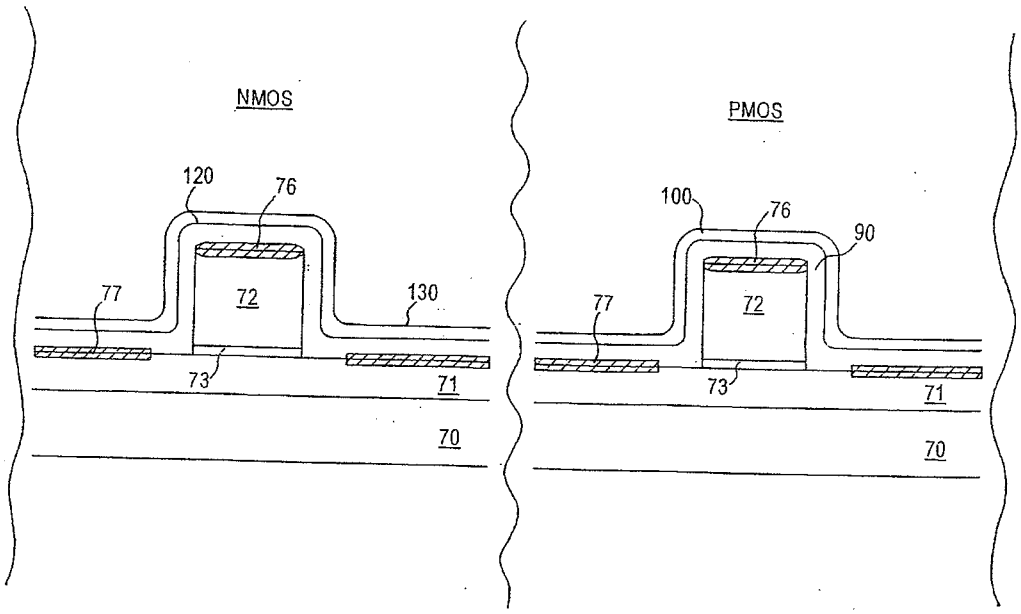
(74) Agent: **DRAKE, Paul, S.**; Advanced Micro Devices, Inc., One AMD Place, Mail Stop 68, P.O. Box 3453, Sunnyvale, CA 94088-3453 (US).

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(54) Title: SEMICONDUCTOR DEVICE BASED ON Si-Ge WITH HIGH STRESS LINER FOR ENHANCED CHANNEL CARRIER MOBILITY



(57) Abstract: The carrier mobility in transistor channel regions of Si-Ge devices is increased by employing a stressed liner. Embodiments include applying a high compressive or tensile stressed film overlying relaxed source/drain regions. Other embodiments include applying a high compressively (90) or high tensilely (120) stressed film, after post silicide spacer removal, over gate electrodes (72) and strained Si source/drain regions (71) of P-channel or N-channel transistors, respectively.

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