

Title (en)
METHOD OF FORMING ULTRASHALLOW JUNCTIONS BY LASER ANNEALING AND RAPID THERMAL ANNEALING

Title (de)
VERFAHREN ZUR HERSTELLUNG DER FLACHEN ÜBERGÄNGE DURCH LASER-ANNEALING UND KURZZEITTEMPERN

Title (fr)
PROCEDE DE FORMATION DE JONCTIONS DE TRES FAIBLE PROFONDEUR PAR RECUIT LASER ET RECUIT THERMIQUE RAPIDE

Publication
EP 1264335 A1 20021211 (EN)

Application
EP 01916675 A 20010315

Priority

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Abstract (en)
[origin: WO0171787A1] Methods are provided for thermal processing of a semiconductor wafer that contains a dopant material. The wafer is irradiated with laser energy sufficient to activate the dopant material without melting the wafer. In addition, rapid thermal annealing of the wafer is performed at relatively low temperature to repair crystalline damage. The dopant activation is achieved with no measurable diffusion. The low temperature rapid thermal anneal repairs crystalline damage, so that devices have good mobilities and low leakage currents.

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IPC 8 full level
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CPC (source: EP KR US)
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Citation (search report)
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