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Porous Silicon as Antireflecting Layer¹ GULSEN KOSOGLU, MEHMET YUMAK, SELIM OKMEN, OZHAN OZATAY, YANI SKARLATOS, CARLOS GARCIA, Bogazici University — The main aim in photovoltaic industry is to produce efficient and energy competitive solar cell modules at low cost. Efficient AntiReflection Coatings (ARC) improve light collection and thereby increase the current output of solar cells. Broadband ARCs are desirable for efficient application over the entire solar spectrum and porous silicon layers as antireflective coating layers provide successful light collection. In the study the most critical physical parameters of porous silicon are examined, homogeneous and uniform porous layers are produced. The photoluminescence spectrum and optical parameters of porous layers have been investigated, and we are now in the process of improving the efficiency of the device by modulating the structure of the porous silicon layers and studying its photovoltaic characteristics.

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