Method of Laser Cutting a Sapphire Substrate by Lasers and an Article Comprising Sapphire with Edge Having a Series of Defects

A method of laser processing a material to form a separated part is described, with also an article comprising sapphire. The method includes focusing a pulsed laser beam (2a) into a laser beam focal line (2b), viewed along the beam propagation direction, directed into the material (1), the laser beam focal line (7) generating an induced absorption within the material (1), the induced absorption producing a hole or fault line along the laser beam focal line (2b) within the material (1), and directing a defocused carbon dioxide (CO2) laser from a distal edge of the material (1) over the plurality of holes to a proximal edge of the material (1).

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