

ABSTRACT

The present application relates to an optical chip structure and a manufacturing method therefor. The method comprises: providing a base and a semi-finished chip, wherein the base
5 comprises a first substrate, an isolation dielectric layer formed on the first substrate, a first semiconductor optical device, and a first waveguide, the semi-finished chip comprises a second substrate and a semi-finished thin-film layer located on one side of the second substrate, the semi-finished thin-film layer and the first waveguide are made of different materials, the first substrate comprises a silicon substrate; forming a recess in the isolation dielectric layer, wherein the first
10 waveguide is at least partially located between the recess and the first substrate; bonding the semi-finished chip in the recess by means of the semi-finished thin-film layer, so that the semi-finished thin-film layer is optically coupled to the first waveguide; removing the second substrate of the semi-finished chip to form a second semiconductor optical device; and carrying out metallization to form an electrode structure separately connected to the first semiconductor optical device and
15 the second semiconductor optical device.

FIG. 1