Data and Code Description

1. Folder Fig.1 contains raw simulation file for Fig. 1(c) and (d). The two figures can be reproduced by running the simulation file “SiC\_Ge\_Fig1.fsp” using Lumerical FDTD. The data for Fig.1(c) and (d) can be obtained from ‘xz’ monitor and ‘xy’ monitor respectively. The data are exported and replotted in origin files “figures.opj”.
2. Folder Fig.2 contains raw simulation files for Fig. 2(a) and (b). The two figures can be reproduced by running “Mat” sweep in the simulation file “SiCSiC\_SiCGe\_Fig2.fsp” using Lumerical FDTD. The “Mat” sweep will simulate both materials for all the heights. The data are exported to Origin Lab for normalization and replotted in origin files “figures.opj”.
3. Folder Fig.3a contains raw simulation files for Fig. 3(a). The figure can be reproduced by running the “D” sweep in the simulation “SiCGe\_D.fsp” file using Lumerical FDTD. The “D” sweep simulates the spectrum of all the reflection spectrum, including the background. The data are exported to Origin Lab for normalization and replotted in origin files “figures.opj”
4. Folder Fig.3b contains raw data for Fig. 3(b). The data are imported to Origin Lab for normalization and replotted in origin files “figures.opj”.
5. Folder Fig.3c contains the code for generating for Fig. 3(c).

Default programming environment: Python 3.7.1

Installed Packages: Scipy (v1.4.1); Matplotlib(3.1.3)

The figure can be generated by running the file Figure3c.ipnb. The figure will be generated and saved in the same directory.

1. Folder Fig.4 contains raw data for Fig. 4. The data are imported to Origin Lab for normalization and replotted in origin files “figures.opj”
2. Folder Fig. S1 contains the code and experimental data for generating for Fig. S1.

Default programming environment: Python 3.7.1

Installed Packages: Scipy (v1.4.1); Matplotlib (3.1.3)

The figure can be generated by running the file FigureS1.ipnb. The figure will be generated and saved in the same directory.