Supplementary information for "Epitaxial Silicides: The Case of Fe, Ni, and Ti"

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Supplementary Information

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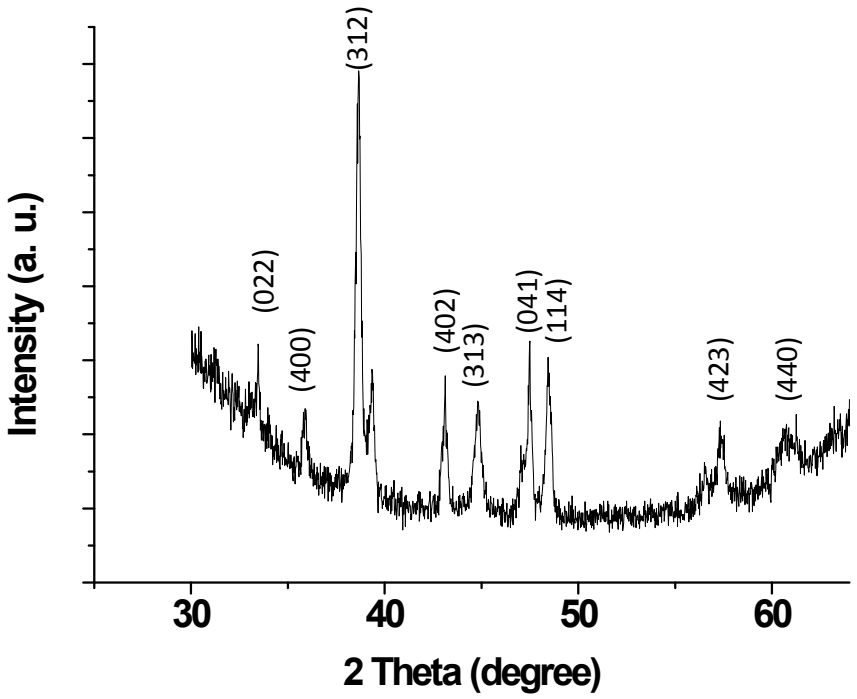

Figure S1 | XRD spectrum of the β-$FeSi_2$ nanodots on the (001)Si substrate. We have examined our samples by XRD to confirm the phase of $FeSi_2$ on the Si substrate annealed at 850 ^oC. The spectrum shows multiple distinct XRD peaks. The crystal structure and lattice constant of $FeSi_2$ is identified as the orthorhombic Cmca space group with lattice constant 0.9863 nm、0.7791 nm and 0.7833 nm, respectively. The XRD spectrum of our sample confirmed the poly-crystallinity of $FeSi_2$ on the Si substrate.

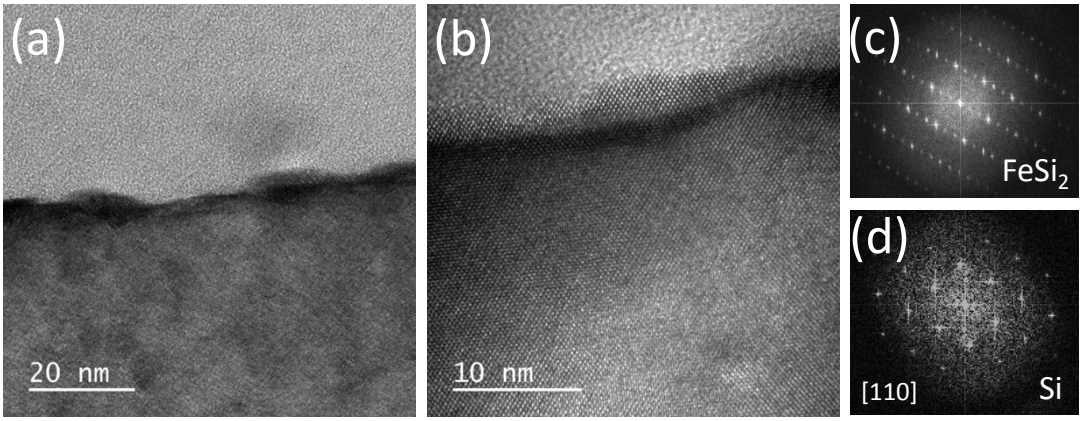

Figure S2 | TEM image of β-$FeSi_2$ nanodots on the (001)Si substrate. We have examined our samples by TEM to confirm the structure of $FeSi_2$ on the Si substrate annealed at 850 ^{o}C. $FeSi_2$ has become nanodot-like structure, as shown in Fig. S2(a). For the crystallinity of each nanodot, the HRTEM image in (b) proves that each nanodot is single-crystalline. Figure S2(c) and (d) are the diffraction patterns made by FFT from the HRTEM image of $FeSi_2$ and Si, respectively.