Electronic Supporting Information

Electrical Control of Carriers’ Spin Orientation in FeVTiSi Heusler Alloy

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Figure S1. (a) Fluctuations of total energy during 2.0 ps MD simulation at 1000 K. Structures at (b) 1.0 ps and (c) 2.0 ps are given.
Figure S2. The calculated density of states based on (a) GGA and (b) GGA+U functional for FeVTiSi Heusler alloy. The Fermi level is set at zero.

Figure S3. (a) Illustration of 25% Ti-Si disorder in a cubic supercell and (b) its calculated density of states based on GGA+U functional.

Table S1. Calculated total and partial spin moments in $\mu_\text{B}$ for FeVTiSi based on HSE06 functional.

<table>
<thead>
<tr>
<th></th>
<th>$m^{Fe}$</th>
<th>$m^{V}$</th>
<th>$m^{Ti}$</th>
<th>$m^{Si}$</th>
<th>$m^{total}$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.56</td>
<td>2.95</td>
<td>0.66</td>
<td>-0.05</td>
<td>3.00</td>
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