

# **DESIGN OF III-V MULTIJUNCTION SOLAR CELLS ON SILICON SUBSTRATE**

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Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in  
partial fulfillment of the requirements for the degree of

**Master of Science  
In  
Electrical Engineering**

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**Description of item under review for fair use: Figure 1.2 Progress in various solar cell technologies over the last 35-40 years [7].**

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**Description of item under review for fair use: Figure 1.3 AM1.5 spectrum and the parts of the spectrum than can, in theory, be used by: (a) Si solar cells and (b) Ga<sub>0.35</sub>In<sub>0.65</sub>P/Ga<sub>0.83</sub>In<sub>0.17</sub>As/Ge solar cells [8].**

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**Description of item under review for fair use: Figure 2.1 Solar Spectrums for AM0, AM1.5G and AM1.5D [1].**

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**Description of item under review for fair use: Figure 2.2 Illustration of various air mass (AM) positions and the zenith point [2].**

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**Description of item under review for fair use: Figure 2.3 Efficiency vs. band gap for AM0 and AM1.5G spectrums [3].**

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