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- 1-2,4, 1 1 1 s,

3.1. Cond c ion mechanisms





2.3. IETS meas remen



2.4. MRAIRS



, 1.1., , y h M (y) , y , y



3.2. Model barrier parame ers calc la ions

 $\varphi(\mathbf{x}, \mathbf{V}) = \varphi_1 + (\varphi_2 - \varphi_1)\mathbf{x}/\mathbf{d} - (\mathbf{x}/\mathbf{d} + \mathbf{s})\mathbf{V},$

 $\varphi(\mathbf{x}, \mathbf{V}) = \varphi_3 - (\mathbf{x}/\mathbf{d} + \mathbf{s})\mathbf{V} \qquad \mathbf{d} < \mathbf{x} \leqslant \mathbf{s}.$

$$J = \frac{2e}{h} \int_{-\infty}^{\infty} \left(-\frac{2}{h} \int_{0}^{d} \left\{ 2m[\varphi(\mathbf{x}, \cdot) - \mathbf{E}_{\mathbf{x}}]^{1/2} \right\} \mathbf{x} \right) \\ \times [f(\mathbf{E}) - f(\mathbf{E} - e\mathbf{V})] \mathbf{E}_{\mathbf{x}},$$

¥1.

,

 $\mathbf{x} \leqslant \mathbf{d}$,

() *Al/CdS/Pb*:

φ DTJ /F11 1 Tf -2.3957 -2.0657 TDTD (Tj /F1 1 Tf 6.)Tj /44/t6f 1



3.3. IET, IR, and calc la ed spec ra