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Quantum Tunneling through Aromatic Molecular Junctions for
Molecular Devices: A Review

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Highlights

- Conjugation is directly proportional to conductance of aromatic MJs.
- Doping of aromatic MJs introduce rectification and NDR effect.
- The geometric parameters of bond length, bond angle and rotation angle are optimized.
- Copper, gold and silver as the ideal choices of electrode materials for MJs.
- Highest conductance of $\langle 1,1,0 \rangle$ orientation followed by $\langle 1,0,1 \rangle$ and least by $\langle 1,1,1 \rangle$.

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