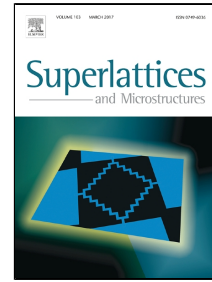


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Enhancement of multisubband electron mobility in square-parabolic asymmetric double quantum well structure

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### Highlights

- We study electron mobility  $\mu$  in a square-parabolic hybrid double quantum well (HDQW)
- We show  $\mu(\text{HDQW}) > \mu(\text{PDQW}) > \mu(\text{SDQW})$  where PDQW/SDQW imply symmetric square/parabolic DQW
- Larger  $\mu$  is due to reduced ionised impurity scattering through intersubband effect
- $\mu(\text{HDQW})$  can be enhanced by increasing the well width and parabolic potential height

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