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## Dielectric laser acceleration for dark sector studies

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For the purpose of indirect search of dark matter, we designed laterally driven Dielectric Laser Acceleration (DLA) structure that achieves 1.2 MeV energy gain in 6 mm length together with 6D confinement. The design originated from a relativistic DLA structure and was supplemented with non-homogeneous shapes following the APF segments and optimized using a genetic algorithm together with the DLATRACK6D tracker. The achieved throughput could be increased to 98%.

### Funding Agency

### Footnotes

### I have read and accept the Privacy Policy Statement

Yes

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