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Title: High-Throughput Refractive Index-Based
Microphotonic Sensor for Enhanced Cellular Discrimination

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Highlights

- An integrated Fabry-Pérot resonant microcavity for cell sorting is proposed.
- Very large cross-section optical rib waveguides provide single-mode like behavior.
- The device can reach 2000 cells per second using inertial focusing microfluidics.
- Effective volume refractive index of large cell population is dynamically measured.
- Dye-free enhanced discrimination capability compared to flow cytometry.

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