

operational efficiency, fast, robust, and reliable analytical solutions are required.


Fortunately, improvements in modern high-performance ion

chromatography (HPIC) systems are helping to deliver fast, sensitive analyses without compromising on resolution. The advanced high-pressure capabilities of the latest HPIC

systems enable excellent separation resolution to be achieved using small diameter particle columns (Exhibit 3), supporting high-confidence identification and quantification of impurities by PAD.

Furthermore, the availability of dedicated fast ion chromatography columns designed for rapid analysis is also boosting workflow productivity by reducing the time taken to deliver results. When these analyses are run using dual channel HPIC systems, throughput can be optimized further, cutting through routine characterization workflow bottlenecks and helping manufacturers of biopharmaceuticals achieve more using the same resources.

### Consistent and reliable

Today's sophisticated biopharma production workflows demand the use of robust and reliable analytical methods to monitor product CQAs and ensure the release of safe, high-quality batches. In addition, with manufacturers under sustained pressure to deliver confident results cost-effectively, the technologies used within routine biopharmaceutical characterization workflows must support efficient, high-throughput analyses. Fortunately, the latest advances in technology are helping to overcome workflow bottlenecks, helping pharma companies collect consistent and reliable biopharmaceutical characterization data faster and more efficiently. 

### References

- <sup>1</sup> Ren D, Pipes GD, Liu D, et al. (2009) An improved trypsin digestion method minimizes digestion-induced modifications on proteins. *Analytical Biochem*; 392(1): 12–21.
- <sup>2</sup> Begg, E.J., Barclay, M.L. and Kirkpatrick C.J.M. (1999) The therapeutic monitoring of antimicrobial agents. *Br. J. Clin. Pharmacol*; 47(1): 23–30.



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