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ACCEPTED MANUSCRIPT

1	Mechanistic Modeling of Ion-Exchange Process Chromatography of Charge Variants
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18	Highlight
 19 20 21 22 23 24 25 26 27 28 29 	 A mechanistic model to predict elution peak profile is proposed for separation of charge variants Inverse fit of process scale chromatogram for estimation of model parameters is used Extended Langmuir model has been proposed to include effect of salt concentration and temperature A range of load capacities, gradient lengths, and bed heights for three different resins examined Proposed model can be used for optimization and control of preparative scale chromatography

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