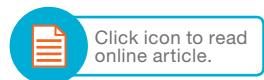


Nuvia™ Chromatography Resins Publications List



Process Separations

Bulletin 6869



Nuvia™ cPrime™ Hydrophobic Cation Exchange

Wang R-Z et al. (2016).

New tetrapeptide ligands designed for antibody purification with biomimetic chromatography: Molecular simulation and experimental validation.
Biochem Eng J 114, 191–201.



Yan J et al. (2016).

Coadsorption of human immunoglobulin G and bovine serum albumin on a *p*-aminohippuric acid based mixed-mode resin.
J Chem Eng Data 61, 151–159.



Zhu M and Carta G (2016).

Protein adsorption equilibrium and kinetics in multimodal cation exchange resins.
Adsorption 22, 165–179.



Karkov HS et al. (2015).

Evaluation of selectivity in homologous multimodal chromatographic systems using *in silico* designed antibody fragment libraries.
J Chromatogr A 1426, 102–109.



Lončar N et al. (2015).

Mixed-mode resins: taking shortcut in downstream processing of raw-starch digesting α -amylases.
Sci Rep 5, 15772.



Parimal S et al. (2015).

Interactions of multimodal ligands with proteins: insights into selectivity using molecular dynamics simulations.
Langmuir 31, 7,512–7,523.



Woo J et al. (2015).

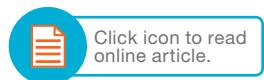
Defining the property space for chromatographic ligands from a homologous series of mixed-mode ligands.
J Chromatogr A 1407, 58–68.



Woo J et al. (2015).

The effect of geometrical presentation of multimodal cation-exchange ligands on selective recognition of hydrophobic regions on protein surfaces.
J Chromatogr A 1412, 33–42.





Nuvia™ cPrime™ Hydrophobic Cation Exchange (continued)

Srinivasan K et al. (2014).

Investigation into the molecular and thermodynamic basis of protein interactions in multimodal chromatography using functionalized nanoparticles.



Langmuir 30, 13,205–13,216.

Yan J et al. (2014).

Protein adsorption behavior and immunoglobulin separation with a mixed-mode resin based on *p*-aminohippuric acid.



J Sep Sci 37, 2,474–2,480.

Gao D et al. (2013).

Evaluating antibody monomer separation from associated aggregates using mixed-mode chromatography.



J Chromatogr A 1294, 70–75.

Glaser V (2013).

Separation of therapeutic biomolecules: mixed-mode chromatography, layered bead designs, *in silico* modeling used at large scale.



Genetic Eng News 33, 33–34.

Nuvia S Cation Exchange

Guo J and Carta G (2015).

Unfolding and aggregation of monoclonal antibodies on cation exchange columns: effects of resin type, load buffer, and protein stability.



J Chromatogr A 1388, 184–194.

Tao Y et al. (2014).

Evaluation of high-capacity cation exchange chromatography for direct capture of monoclonal antibodies from high-titer cell culture processes.



Biotechnol Bioeng 111, 1,354–1,364.

Ng PK and Snyder MA (2012).

pH-based cation exchange chromatography in the capture and elution of monoclonal antibodies.



J Sep Sci 35, 29–35.

Pérez Almodóvar EX et al. (2012).

Counterion effects on protein adsorption equilibrium and kinetics in polymer-grafted cation exchangers.



J Chromatogr A 1253, 83–93.

Pérez Almodóvar EX et al. (2012).

Multicomponent adsorption of monoclonal antibodies on macroporous and polymer grafted cation exchangers.



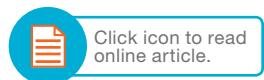
J Chromatogr A 1264, 48–56.

Pérez Almodóvar EX et al. (2011).

Protein adsorption and transport in cation exchangers with a rigid backbone matrix with and without polymeric surface extenders.



Biotechnol Prog 27, 1,264–1,272.



Nuvia S Cation Exchange (continued)

He X et al. (2010).

Nuvia S Media.

Bioprocess Int 8, 59–61.



Nuvia Q Anion Exchange

Zhu M and Carta G (2014).

Adsorption of polyethylene-glycolated bovine serum albumin on macroporous and polymer-grafted anion exchangers.

J Chromatogr A 1326, 29–38.



Ng PK and Snyder MA (2013).

Purification of β-lactoglobulin with a high-capacity anion exchanger: high-throughput process development and scale-up considerations.

J Sci Food Agric 93, 3,231–3,236.



Nian R et al. (2013).

Void exclusion of antibodies by grafted-ligand porous particle anion exchangers.

J Chromatogr A 1282, 127–132.



Vetter TA et al. (2013).

Mixed-beds of strong and weak anion exchange resins for protein separations with step-induced pH gradients.

Sep Sci Technol 49, 477–489.



Ng PK and Snyder MA (2012).

pH-based cation exchange chromatography in the capture and elution of monoclonal antibodies.

J Sep Sci 35, 29–35.



Morrow KJ, Jr (2011).

Strategies to advance mAb production: new approaches to process challenges help push the industry forward.

Genetic Eng News 31, 42–49.



Pérez Almodóvar EX et al. (2011).

Protein adsorption and transport in cation exchangers with a rigid backbone matrix with and without polymeric surface extenders.

Biotechnol Prog 27, 1,264–1,272.



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