

TOSOH

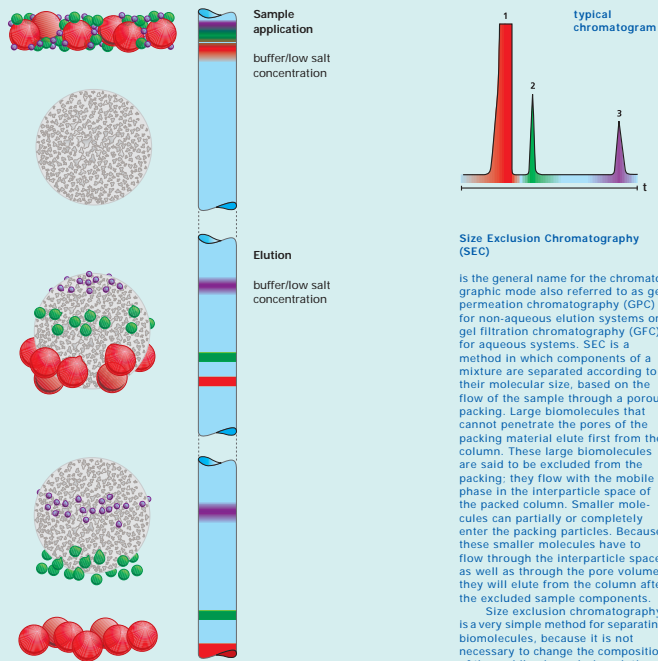
# TOSOH BIOSCIENCE

## General Principles of Liquid Chromatography

### Size Exclusion Chromatography

TSK-GEL® Columns for SEC

- TSKgel SW-Series
- TSKgel PW-Series
- TSKgel Alpha-Series
- TSKgel Super AW-Series
- TSKgel H-Series



### Adsorption Chromatography

TSK-GEL® Columns for HIC

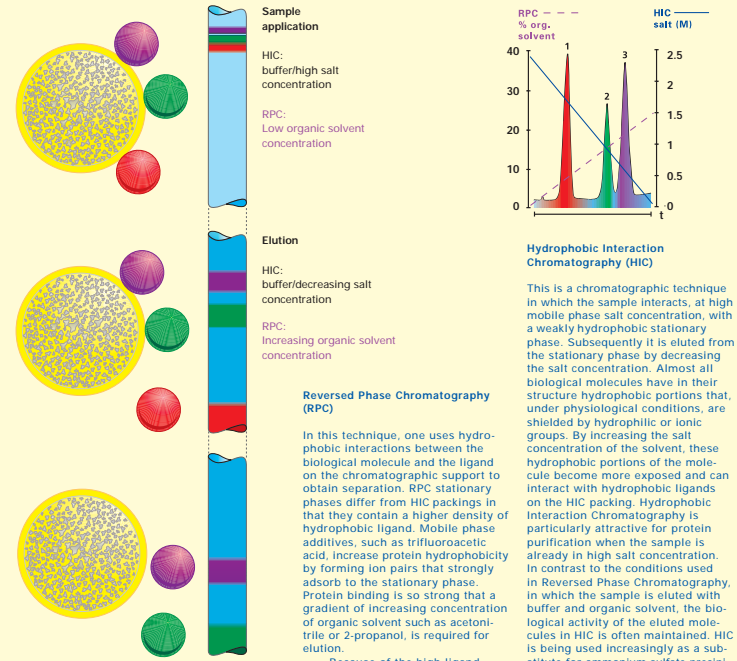
- TSKgel Phenyl-5PW
- TSKgel Ether-5PW
- TSKgel Butyl-NPR

TSK-GEL® Columns for RPC

- Silica based Columns**
- TSKgel Super Series
- TSKgel ODS
- TSKgel Octyl
- TSKgel CN
- TSKgel Oligo DNA
- TSKgel TMS

**Polymer based Columns**

- TSKgel Octadecyl
- TSKgel Phenyl-5PW-RP



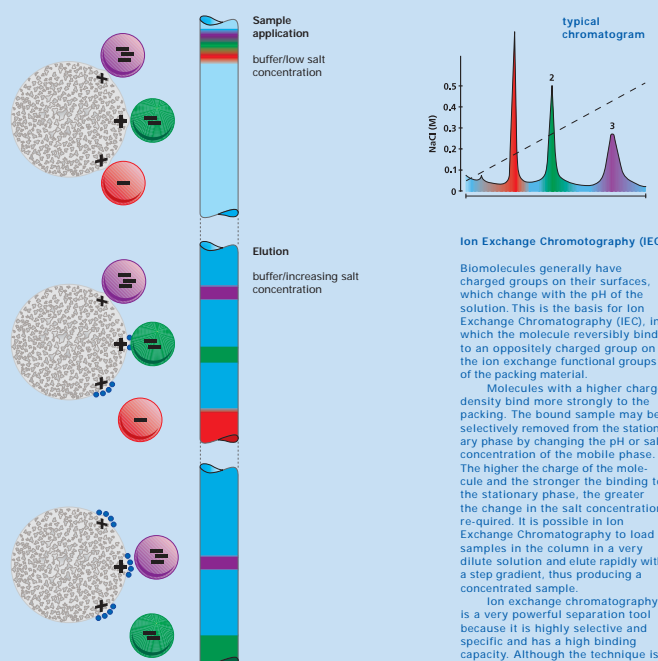
### Ion Exchange Chromatography

TSK-GEL® Columns for IEC

- Anionic Exchange Columns**
- TSKgel DEAE-3SW
- TSKgel DEAE-2SW
- TSKgel DEAE-5PW
- TSKgel DEAE-NPR
- TSKgel BioAssist Q
- TSKgel SAX

**Cationic Exchange Columns**

- TSKgel CM-2SW
- TSKgel CM-3SW
- TSKgel CM-5PW
- TSKgel SP-2SW
- TSKgel SP-5PW
- TSKgel SP-NPR
- TSKgel BioAssist S
- TSKgel SCX



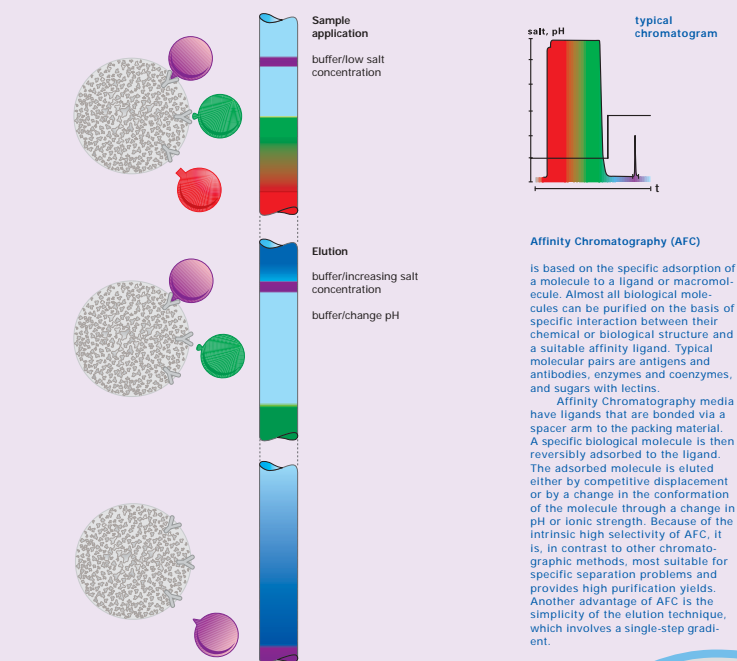
### Affinity Chromatography

TSK-GEL® Columns for Affinity

- Group Specific Columns**
- TSKgel ABA-5PW
- TSKgel Boronate-5PW
- TSKgel Chelate-5PW

**Activated Columns**

- TSKgel TRESYL-5PW



### Tosoh Bioscience's Bioseparation Columns

The analysis, isolation, and purification of biomolecules can be accomplished by a number of chromatographic modes. Each mode is based on specific physical, chemical, or biological interactions between the sample biomolecules and the packing material.

The various modes of chromatography involve separations that are based on size, charge, hydrophobicity, function or specific content of the biomolecules. The general principles of the most commonly used modes are outlined here.

TOSOH BIOSCIENCE offers a comprehensive line of media and pre-packed columns for all common modes of liquid chromatography including ion-exchange, hydrophobic-interaction, reversed-phase, size-exclusion and affinity.

TSK-GEL® is available as bulk polymeric resin or in silica or polymeric-based prepacked columns.

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