

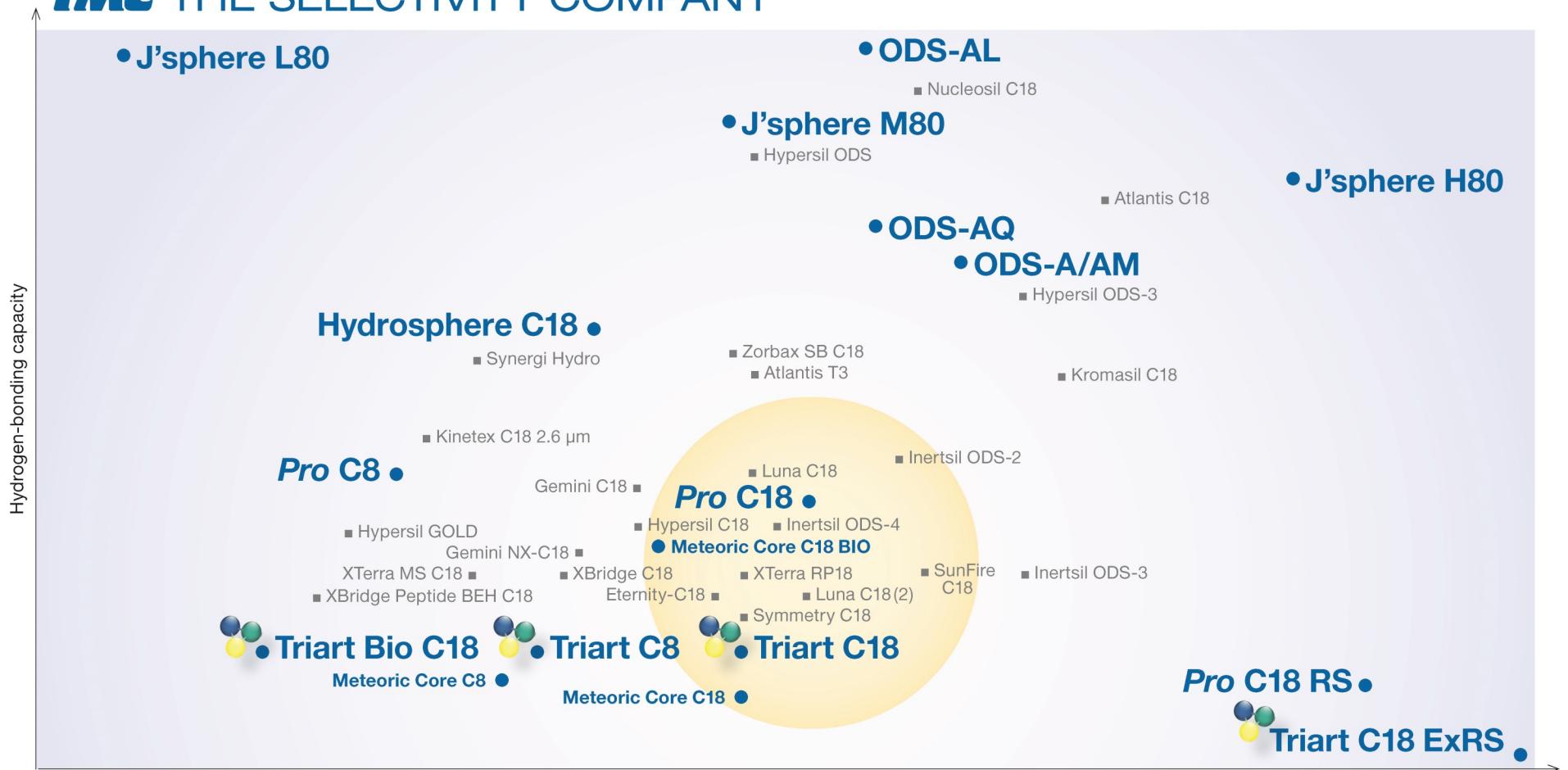
# Analytical Stationary Phases for RP-HPLC and UHPLC

**YMC**

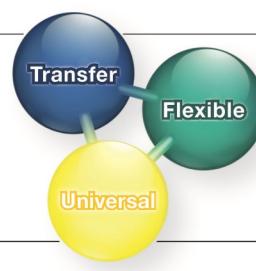
|     | STATIONARY PHASE      | PHASE CHARACTERISTICS (silica-based unless stated)                            | USP CLASS  | PARTICLE SIZE (µm) | PORE SIZE (nm) | CARBON LOAD (%C) | pH RANGE                                  | TYPICAL APPLICATIONS   |
|-----|-----------------------|---|--|--------------------|----------------|------------------|---|--|
| C18 | C18                   | YMC Carotenoid  | specialty phase with proprietary polymeric bonding chemistry                     | L62                | 3, 5           | proprietary      | proprietary                               | 2.0–7.5<br>isomeric carotenes, retinols, steroids, fat-soluble vitamins      |
|     | YMC-Triart C18        | organic/inorganic hybrid silica, most versatile phase                         |  | L1                 | 1.9, 3, 5      | 12               | 20  | 1.0–12.0<br>acidic, neutral, basic compounds, medium polar compounds         |
|     | YMC-Triart C18 ExRS   | organic/inorganic hybrid silica, steric recognition                           |  | L1                 | 1.9, 3, 5      | 8                | 25  | 1.0–12.0<br>stereoisomers and hydrophobic analytes, fatty acids              |
|     | YMC-Triart Bio C18    | organic/inorganic hybrid silica, wide pore phase, medium hydrophobicity       |  | L1                 | 1.9, 3, 5      | 30               | —   | 1.0–12.0<br>acidic, neutral, basic compounds                                 |
|     | YMC-Pack Pro C18      | ultra-high purity silica, general purpose phase                               |  | L1                 | 2, 3, 5        | 12               | 16  | 2.0–8.0<br>antioxidants, metabolites, APIs                                   |
|     | YMC-Pack Pro C18 RS   | ultra-high purity silica, steric recognition                                  |  | L1                 | 3, 5           | 8                | 22  | 1.0–10.0<br>stereoisomers and hydrophobic analytes                           |
|     | Hydrosphere C18       | ultra-high purity silica, very polar phase                                    |  | L1                 | 2, 3, 5        | 12               | 12  | 2.0–8.0<br>strong polar compounds, water-soluble vitamins                    |
|     | Meteoric Core C18     | silica based Core-Shell phase for fast separation                             |  | L1                 | 2.7            | 8                | 7   | 1.5–10<br>fast analysis of basic and coordinating compounds                  |
|     | Meteoric Core C18 BIO | silica based wide pore Core-Shell phase for fast separation                   |  | L1                 | 2.7            | 16               | 5   | 1.5–10<br>fast analysis of peptides and small proteins                       |
|     | YMC-Pack ODS-A        | classical general purpose phase, different pore sizes                         |  | L1                 | 3, 5           | 12, 20, 30 *     | 17, 12, 7                                 | 2.0–7.5<br>validated API methods   |
|     | YMC-Pack ODS-AM       | classical general purpose phase for validated methods operation               |  | L1                 | 3, 5           | 12               | 17  | 2.0–7.5<br>purines, phenols, alkaloids                                       |
|     | YMC-Pack ODS-AQ       | classical polar phase   |  | L1                 | 3, 5           | 12, 20           | 14, 10                                    | 2.0–7.5<br>strong polar compounds  |
|     | YMC-Pack ODS-AL       | classical phase for „mixed mode“ separations                                  |  | L1                 | 5              | 12               | 17  | 2.0–7.5<br>tocopherols, fat-soluble vitamins, disinfectants                  |
|     | J'Sphere ODS          | specialty phase with controlled hydrophobicity for method development         |  | L1                 | 4              | 8                | 22, 14, 9 (JH, JM, JL)<br>2.0–7.5 (JM/JL) | 1.0–9.0 (JH)<br>2.0–7.5 (JM/JL)<br>positional isomers, complexing agents     |
| C8  | C8                    | YMC-Pack Polymer C18  | phase based on polymer matrix  |                    | —              | 6                | proprietary                               | —<br>2.0–13.0<br>phenols, anilines, quaternary amines                        |
|     | YMC PAH               | specialty phase designed for the analysis of PAHs                             |  | L118               | 3, 5           | proprietary      | proprietary                               | 2.0–6.5<br>PAHs, PCBs  |
|     | YMC-Triart C8         | organic/inorganic hybrid silica, general purpose phase, medium hydrophobicity |  | L7                 | 1.9, 3, 5      | 12               | 17  | 1.0–12.0<br>acidic, neutral, basic compounds                                 |
|     | YMC-Pack Pro C8       | ultra-high purity silica, general purpose phase, medium hydrophobicity        |  | L7                 | 3, 5           | 12               | 10  | 2.0–7.5<br>acidic, neutral, basic and chelating compounds, drugs/metabolites |
|     | Meteoric Core C8      | silica based Core-Shell phase, medium hydrophobicity                          |  | L7                 | 2.7            | 8                | 5   | 1.5–9.0<br>fast analysis of basic and coordinating compounds                 |
| C6  | C6                    | YMC-Pack C8   | classical general purpose phase with different pore sizes, medium hydrophobicity | L7                 | 3, 5           | 12, 20, 30 *     | 10, 7, 4                                  | 2.0–7.5<br>proteins and peptides, estrogens                                  |
|     | YMCbasic              | specialty phase for basic pharmaceuticals w/o need for ion pair modifiers     |  | L7                 | 3, 5           | 20               | 7   | 2.0–7.5<br>basic molecules, anilines, alkaloids, antidepressants             |
|     | YMC-Triart Phenyl     | organic/inorganic hybrid silica, phenyl-butyl ligand                          |  | L11                | 1.9, 3, 5      | 12               | 17  | 1.0–10.0<br>aromatic compounds, pharmaceuticals, sweeteners                  |
| C4  | C4                    | YMC-Pack Ph (Phenyl)  | classical phase, phenyl ligand   |                    | 3, 5           | 12, 30 *         | 9, 3                                      | 2.0–7.5<br>aromatic compounds, phenols, fullerenes, sweeteners               |
|     | YMC-Triart PFP        | organic/inorganic hybrid silica, PFP-propyl ligand, steric recognition        |  | L43                | 1.9, 3, 5      | 12               | 15  | 1.0–8.0<br>aromatic stereoisomers, halogenated and polar compounds           |
|     | YMC-Triart Bio C4     | organic/inorganic hybrid silica, low hydrophobicity, wide pore phase          |  | L26                | 1.9, 3, 5      | 30               | —   | 1.0–10.0<br>proteins, antibodies, peptides                                   |
|     | YMC-Pack Pro C4       | ultra-high purity silica, general purpose phase, low hydrophobicity           |  | L26                | 3, 5           | 12               | 7   | 2.0–7.5<br>polar acidic, neutral, basic and chelating compounds              |
| C1  | C1                    | YMC-Pack C4   | classical phase, different pore sizes, low hydrophobicity                        |                    | 3, 5           | 12, 20, 30 *     | 7, 5, 3                                   | 2.0–7.5<br>biological separations, polar compounds                           |
|     | YMC-Pack PROTEIN-RP   | specialty phase designed for high stability and good recovery rates           |  | L26                | 5              | 20               | 4   | 1.5–7.5<br>proteins, peptides  |
| CN  | CN                    | YMC-Pack TMS (C1)   | classical phase, very low hydrophobicity   |                    | 3, 5           | 12               | 4   | 2.0–7.5<br>water-soluble vitamins  |
|     | CN                    | YMC-Pack CN   | classical phase, useful for SFC applications                                     | L10                | 3, 5           | 12, 30 *         | 7, 3                                      | 2.0–7.5<br>steroids, catechols   |

\*not all combinations of particle and pore size are available

high hydrophobicity   high pH stability   100% aqueous stable   non-endcapped



RP overview analytical 03/2020



#### YMC-Triart columns stand for:

- Versatility
- Flexibility in method development
- Robustness
- Long life time = High productivity
- Reproducibility