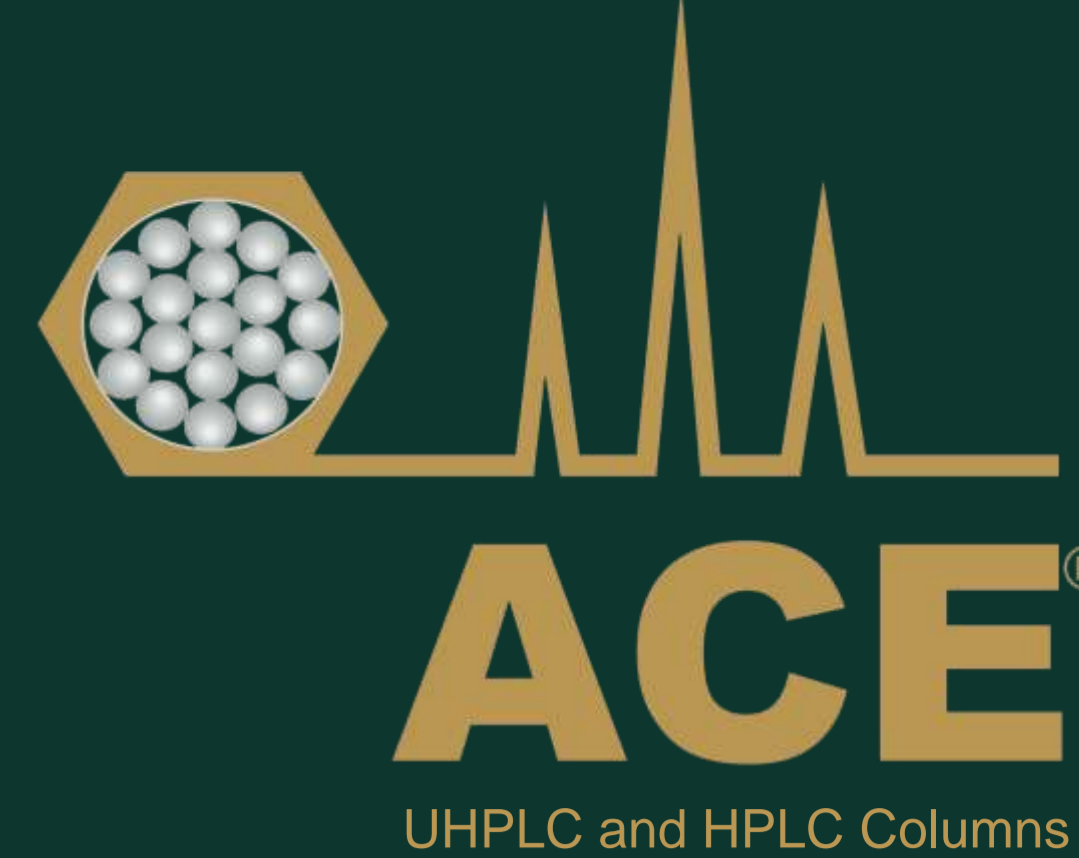


A New, Extended pH Range Stable Solid Core UHPLC / HPLC Column Family With SuperC18 And SuperPhenylHexyl Bonded Phases



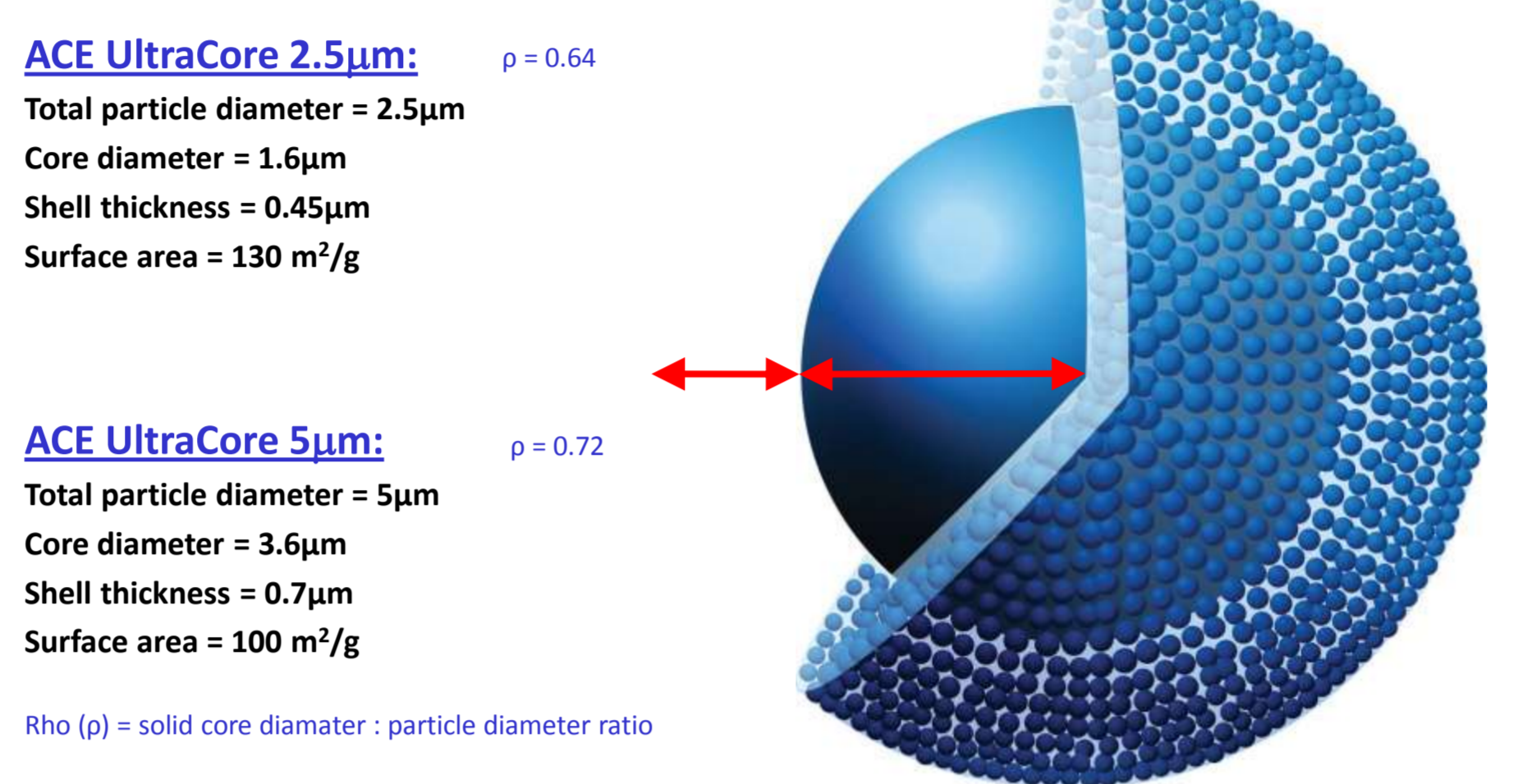
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1. INTRODUCTION

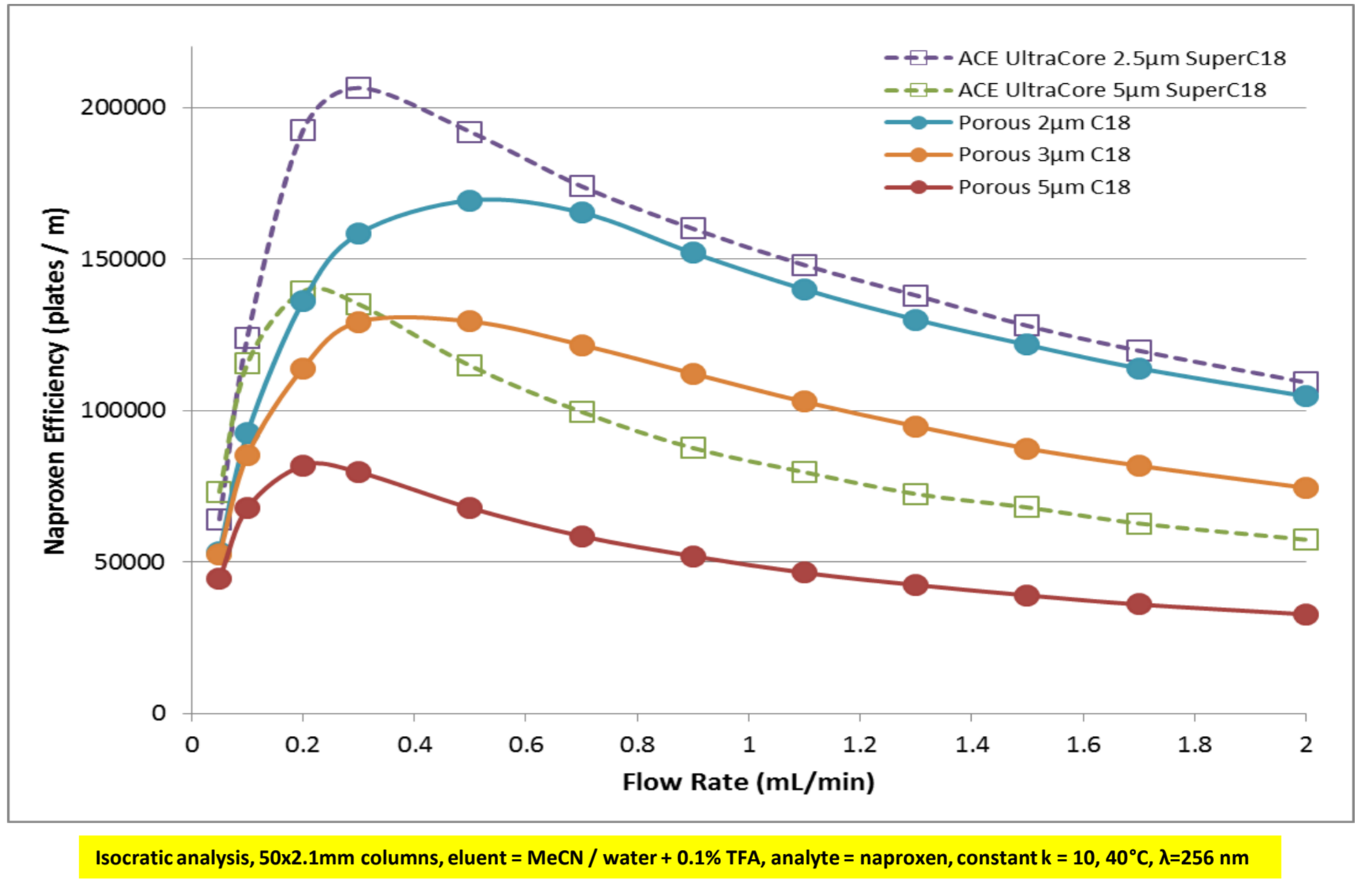
- Solid core particles have gained interest for UHPLC / HPLC due to rapid separations, method transferability and low back pressure.
- Many current solid core columns have a reduced usable eluent pH range.
- Using novel bonding technology, ACE[®] UltraCore[™] SuperPhenylHexyl and SuperC18 phases deliver superior inertness and superb peak shape for acids, bases and neutral analytes for UHPLC / HPLC.
- The advanced bonding technology provides reproducibility and stability between pH 1.5 to 11.0 for both phases allowing selectivity to be fully explored for method development & screening activities.
- This poster explores selectivity and separations with ACE[®] UltraCore[™].

2. ACE[®] UltraCore[™]: SOLID CORE PARTICLE TECHNOLOGY

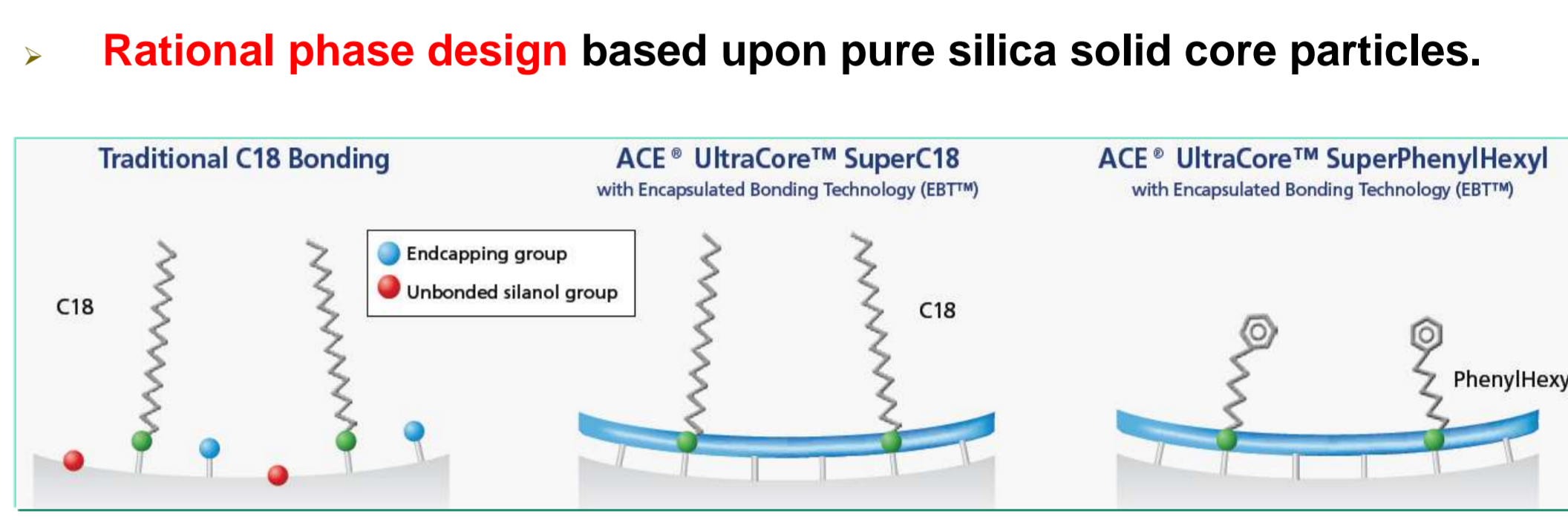


- ACE solid core particles are scalable for selectivity.
- ACE porous particles are fully scalable (2µm → 10µm).

3. EFFICIENCY COMPARISON: POROUS AND SOLID CORE

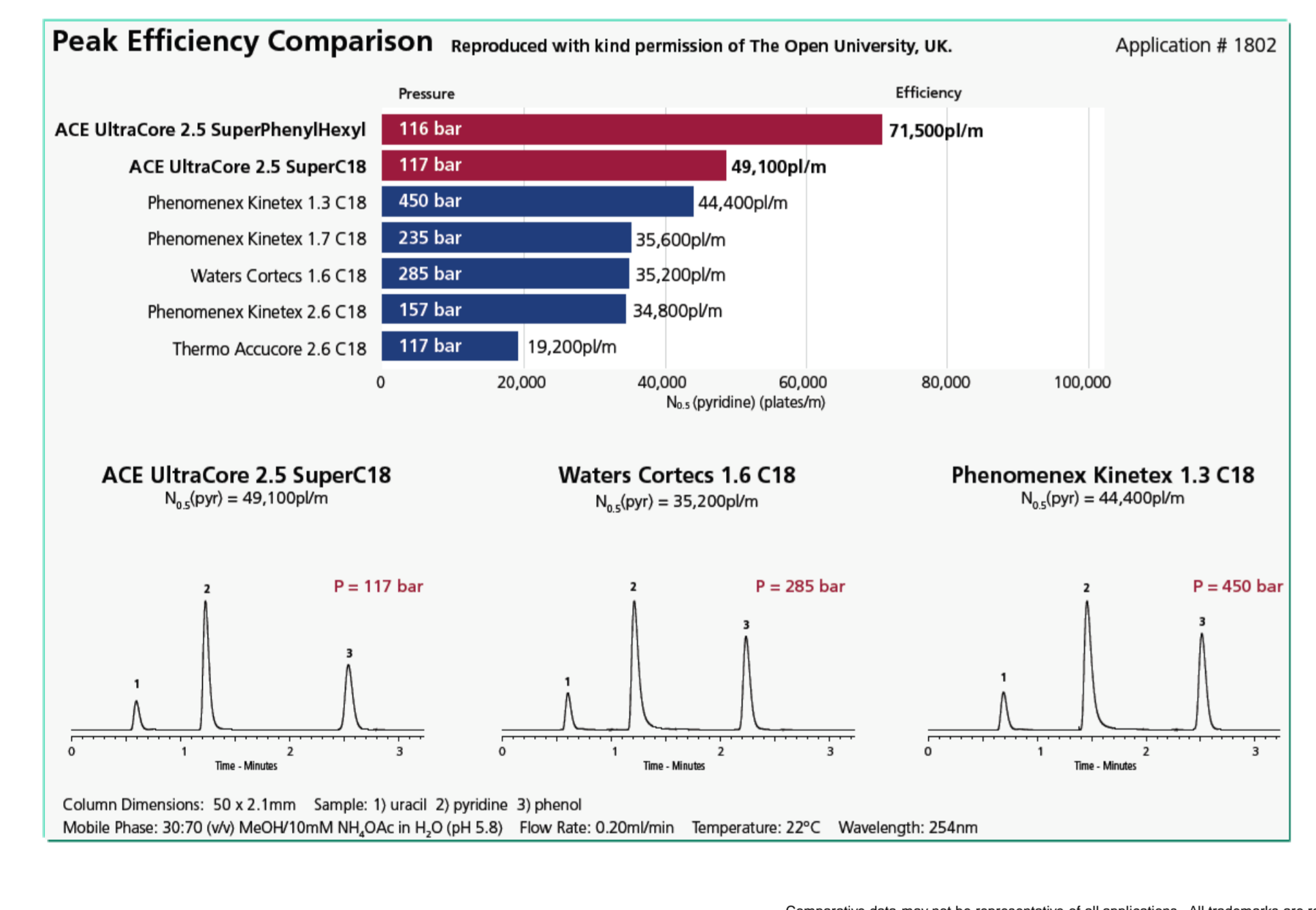


4. ENCAPSULATED BONDING TECHNOLOGY (EBT[™])

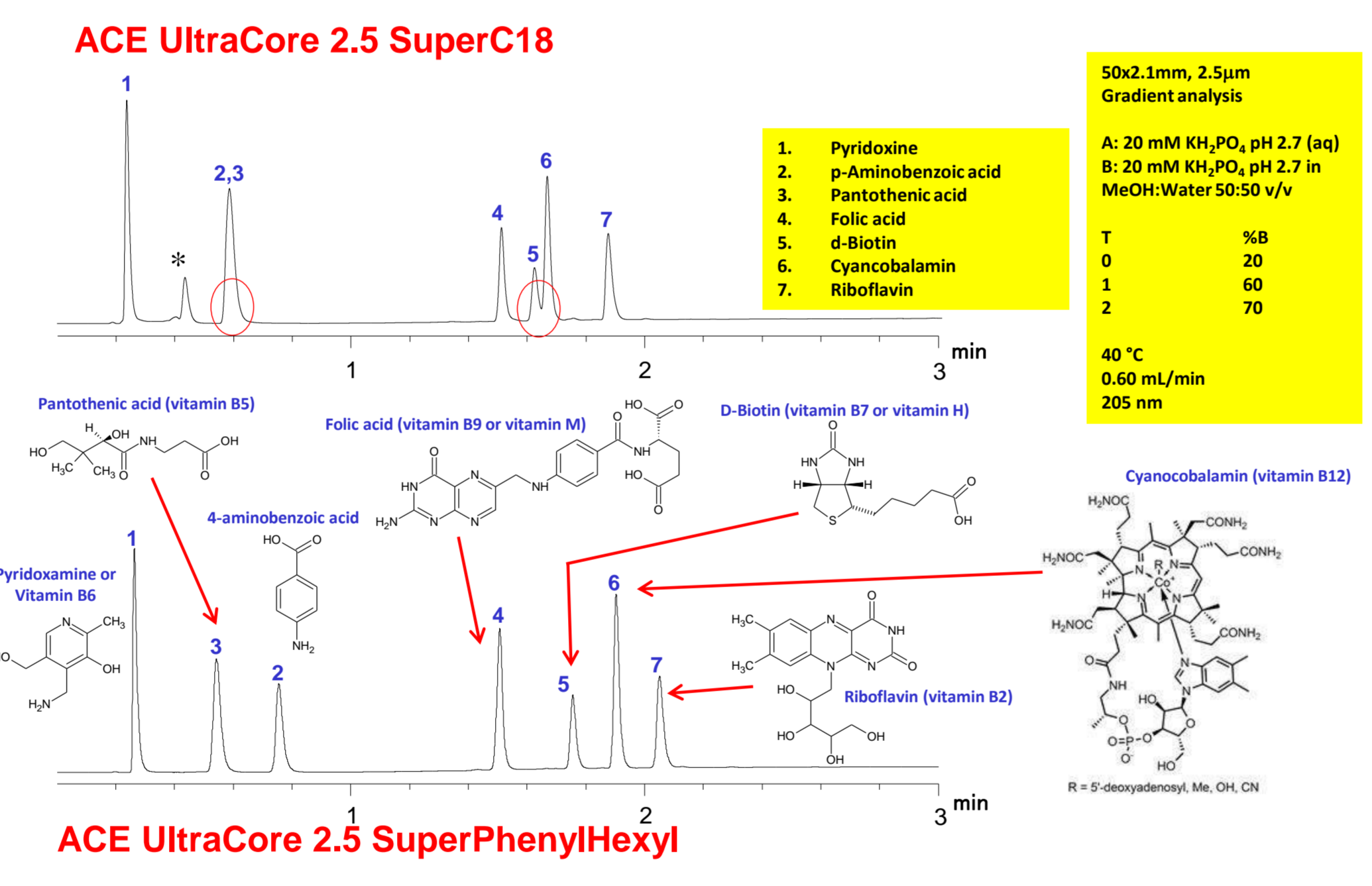


- The bonding dramatically reduces silanol activity leading to a highly inert silica solid core particle with subsequent excellent peak shapes for acidic, basic and neutral analytes.

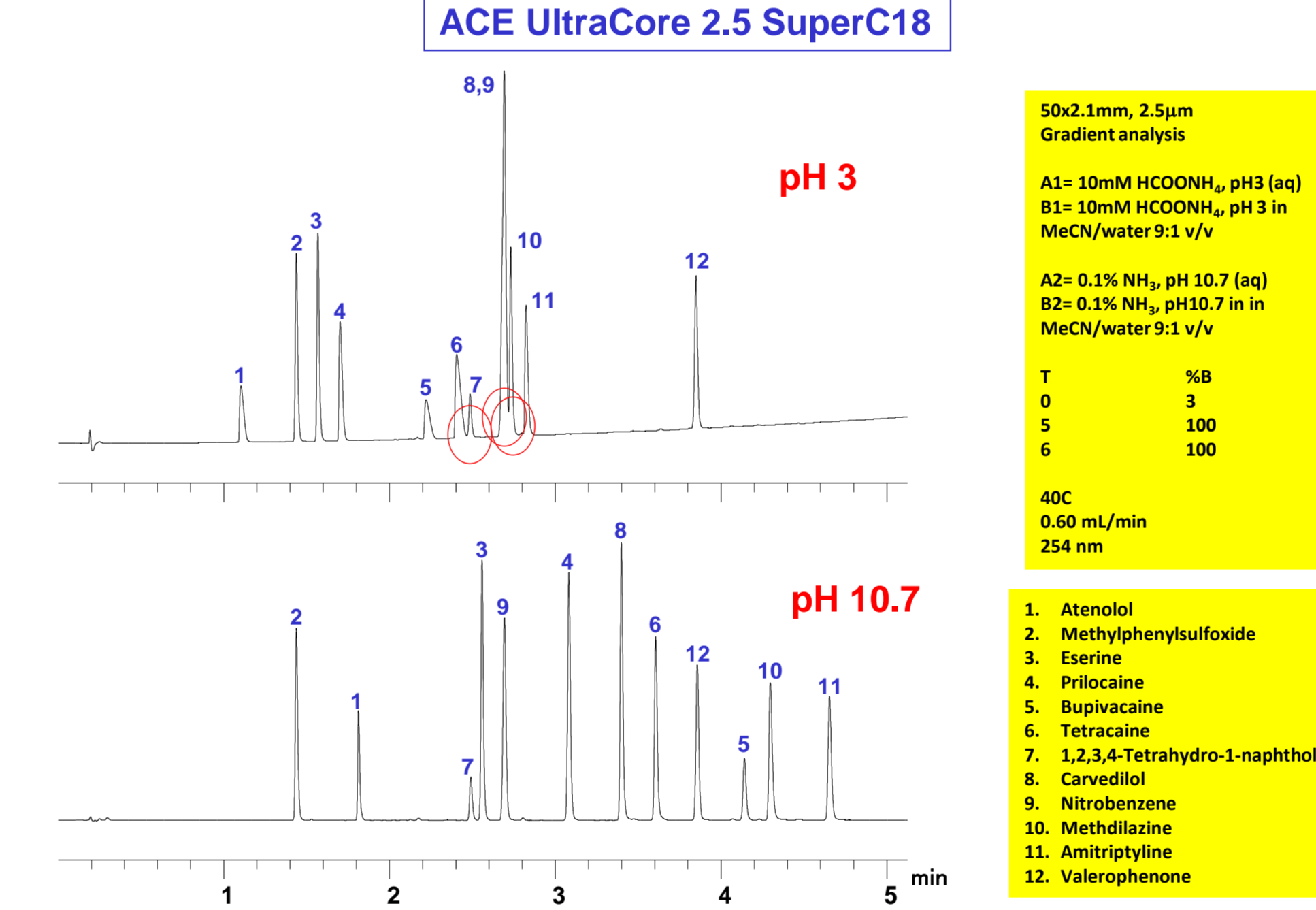
5. SOLID CORE INERTNESS DATA COMPARISONS



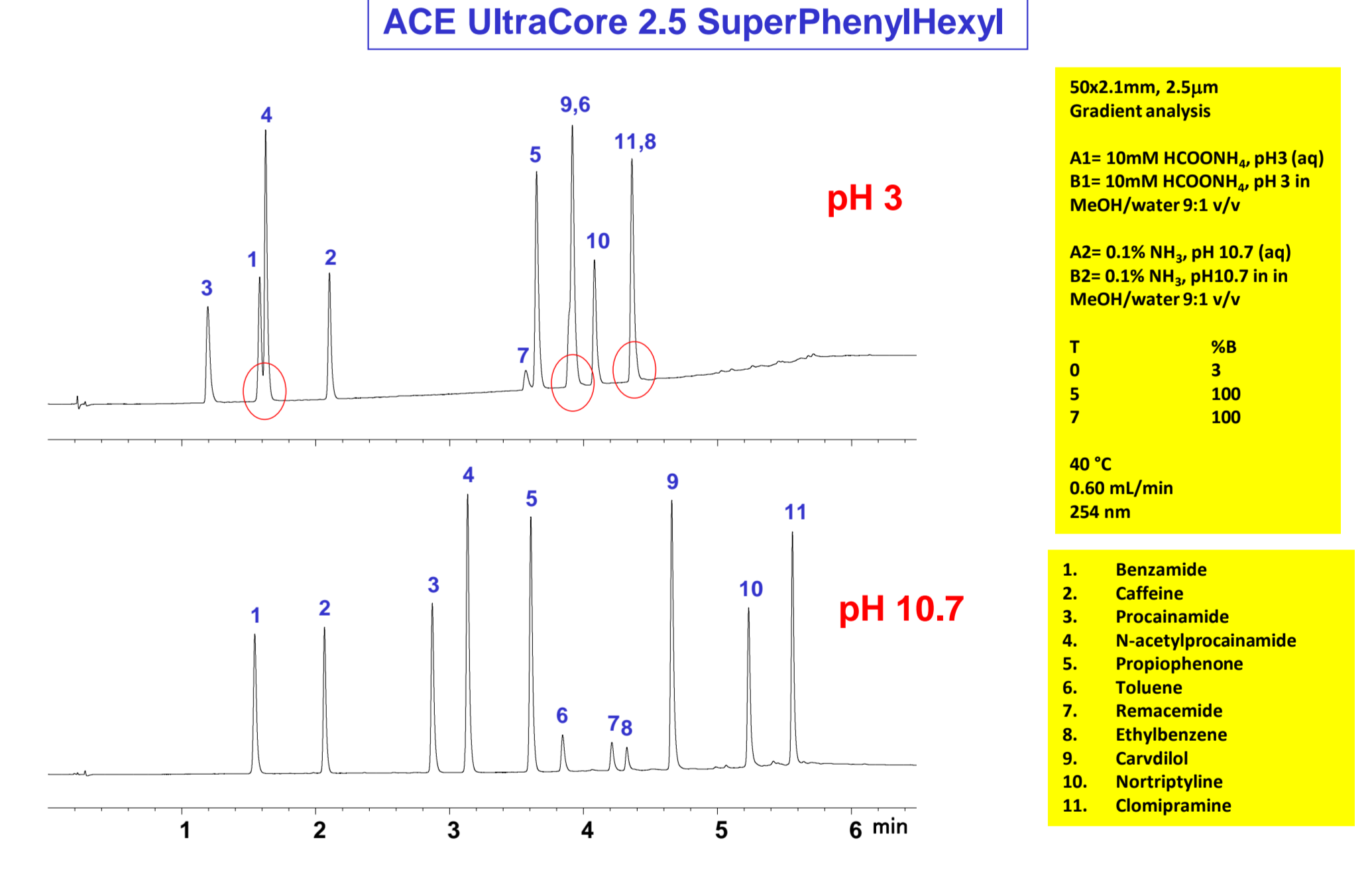
6. EXPLOIT PHASE SELECTIVITY FOR SEPARATIONS



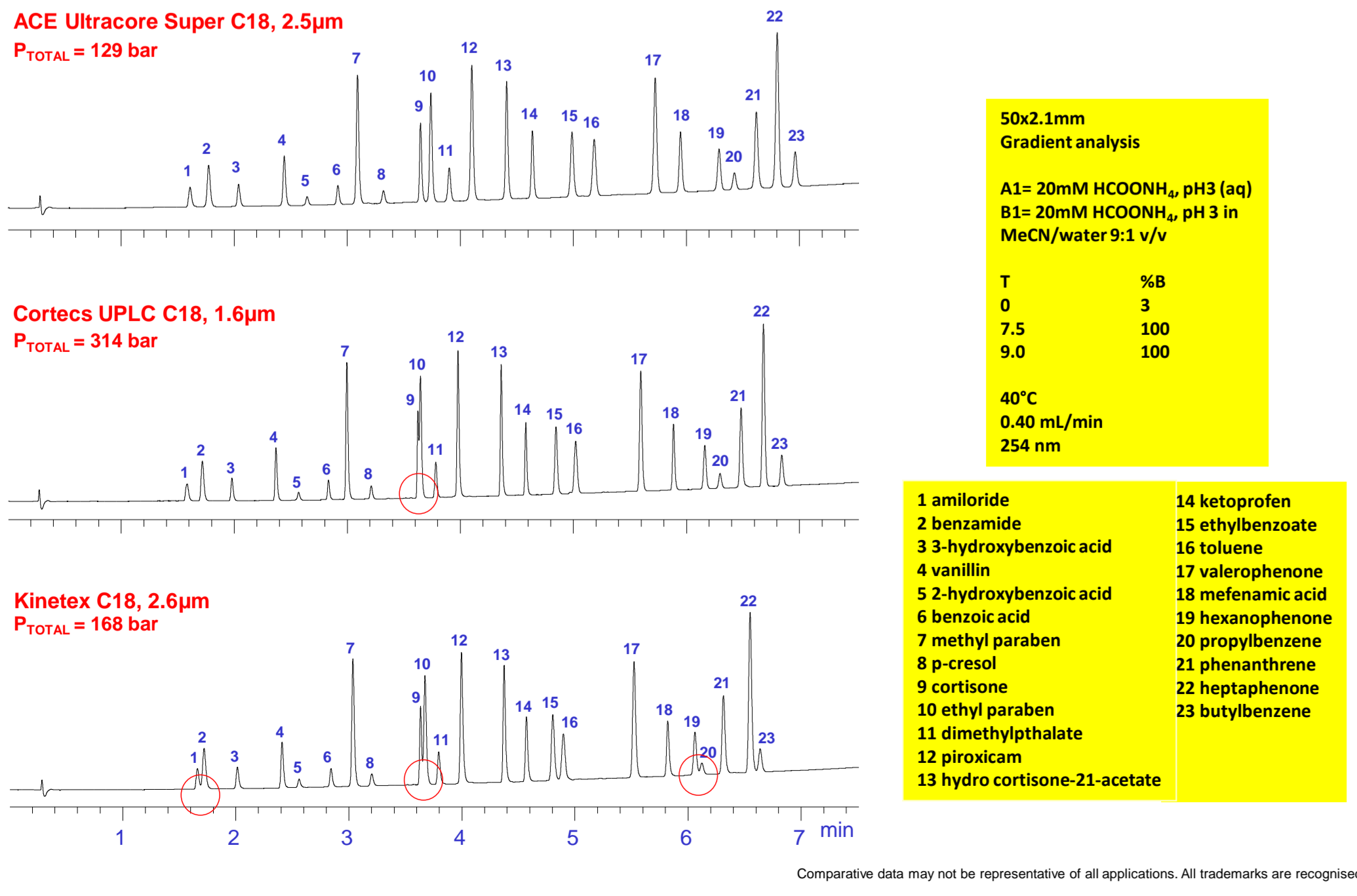
7. EXPLOIT SELECTIVITY WITH LOW & HIGH ELUENT PH



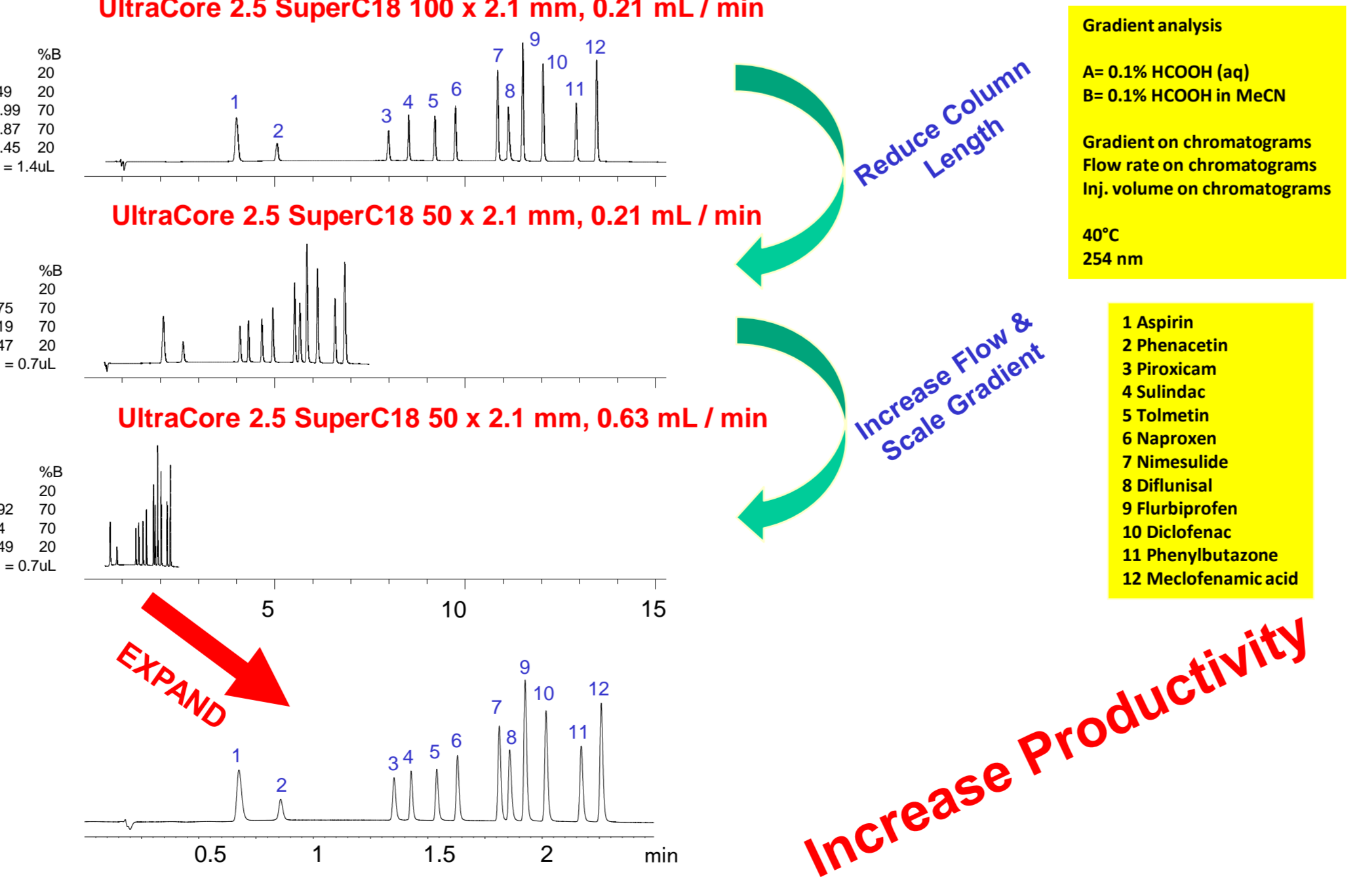
8. EXPLOIT SELECTIVITY WITH LOW & HIGH ELUENT PH



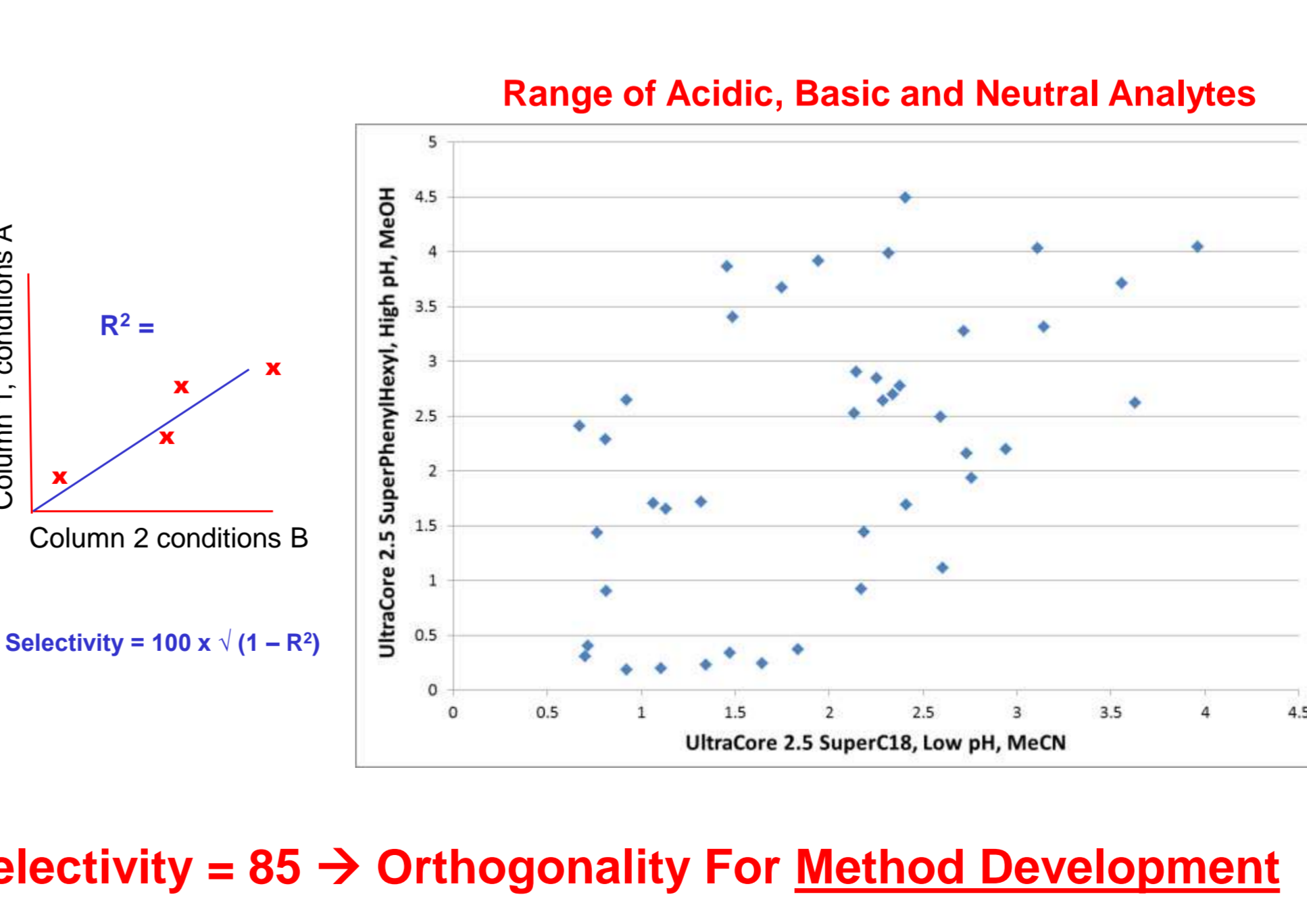
9. SOLID CORE COMPARISONS FOR COMPLEX MIXTURES



10. METHOD SCALING / RAPID ANALYSES / PRODUCTIVITY



11. ACE[®] UltraCore[™]: EXPLORE PHASE & PH SELECTIVITY



12. SUMMARY AND CONCLUSIONS

- ACE[®] UltraCore[™] and solid core particle technology are exciting developments for UHPLC / HPLC.
- ACE[®] UltraCore[™] SuperC18 and SuperPhenylHexyl columns provide highly inert phases that deliver excellent chromatographic performance for acidic, basic or neutral analytes across the pH range.
- The ability to exploit selectivity using stationary phase type with a broad eluent pH range (1.5 to 11.0) provides analysts with a powerful option for solid core column based method development.