This repository contains the model development of our **idealized river chemistry model**, now extended to include **multiple nodes (12 total)** representing upstream to downstream river segments.

In this version (1.1.1 Idealized\_Yukon\_Multi\_Node\_Model), we apply:

* **Slow chemical reactivity**, and
* **Lower initial DOC concentration**,

Based on the findings from our initial two-node model setup: **River\_3000km\_ChemicalReactivity(slow)\_InitialDOC(lower)**.

By extending the model spatially while maintaining these validated chemical settings, we assess how DOC evolves along the full river continuum. These simulations support identifying realistic transformation pathways of dissolved organic carbon (DOC) for Arctic river systems.

📄 For methodology and background, please refer to our published study:  
 [Atmosphere, 2020 – https://doi.org/10.3390/atmos11101090](https://doi.org/10.3390/atmos11101090)