

**STARS<sup>®</sup>**

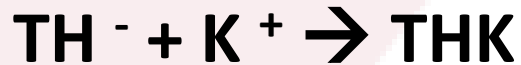
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**THE ECO-SELECTIVE TECHNOLOGY**

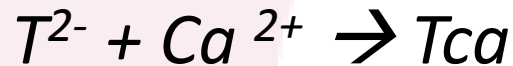
**OENODIN**  **INRA**

 **STARS<sup>®</sup>**  
*Stab*

- **Tartrate precipitation**



*Temperature-dependant reaction cinetics*



*Reaction cinetics are unrelated to temperature*



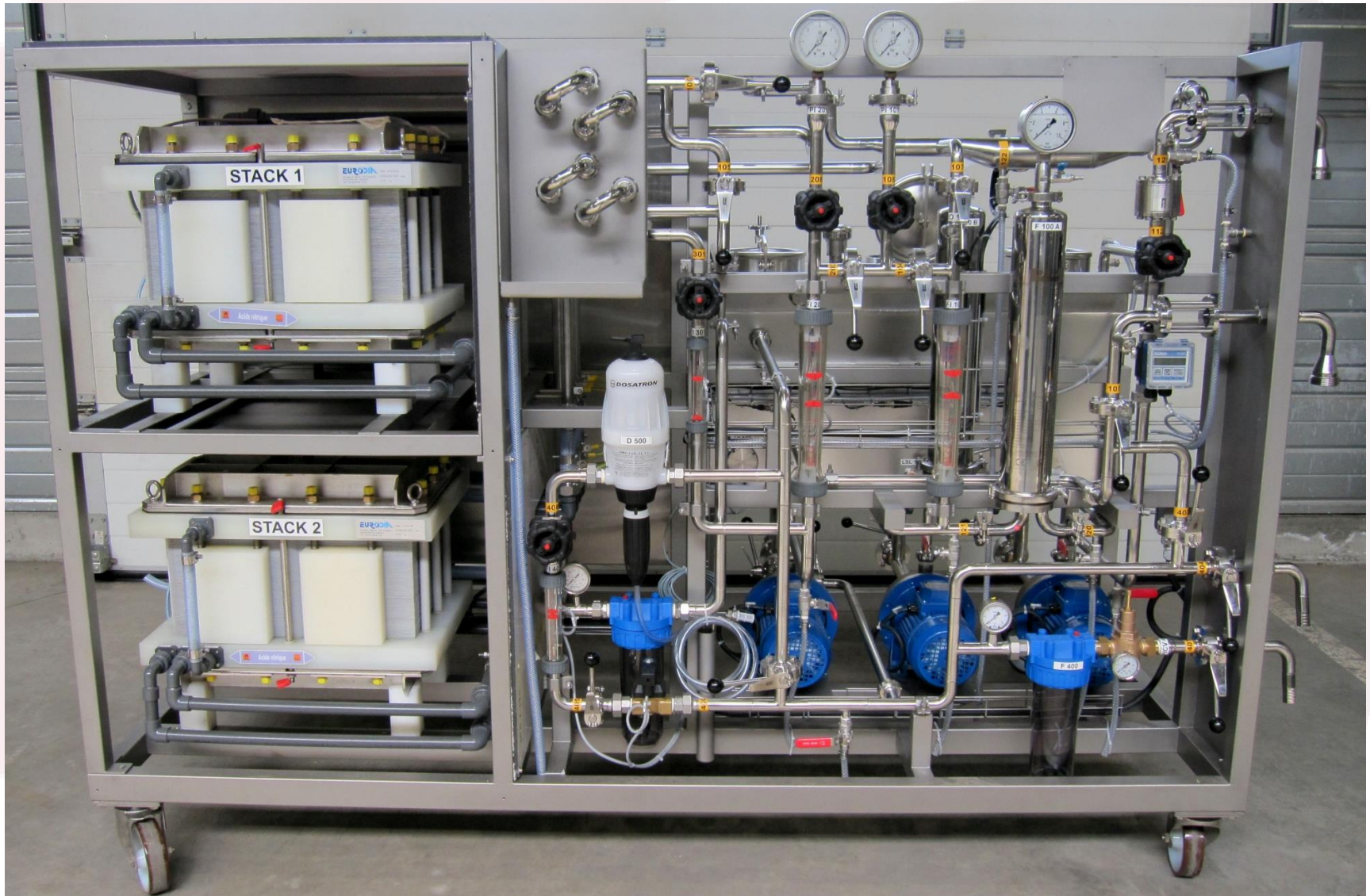
- **Tartaric instability**

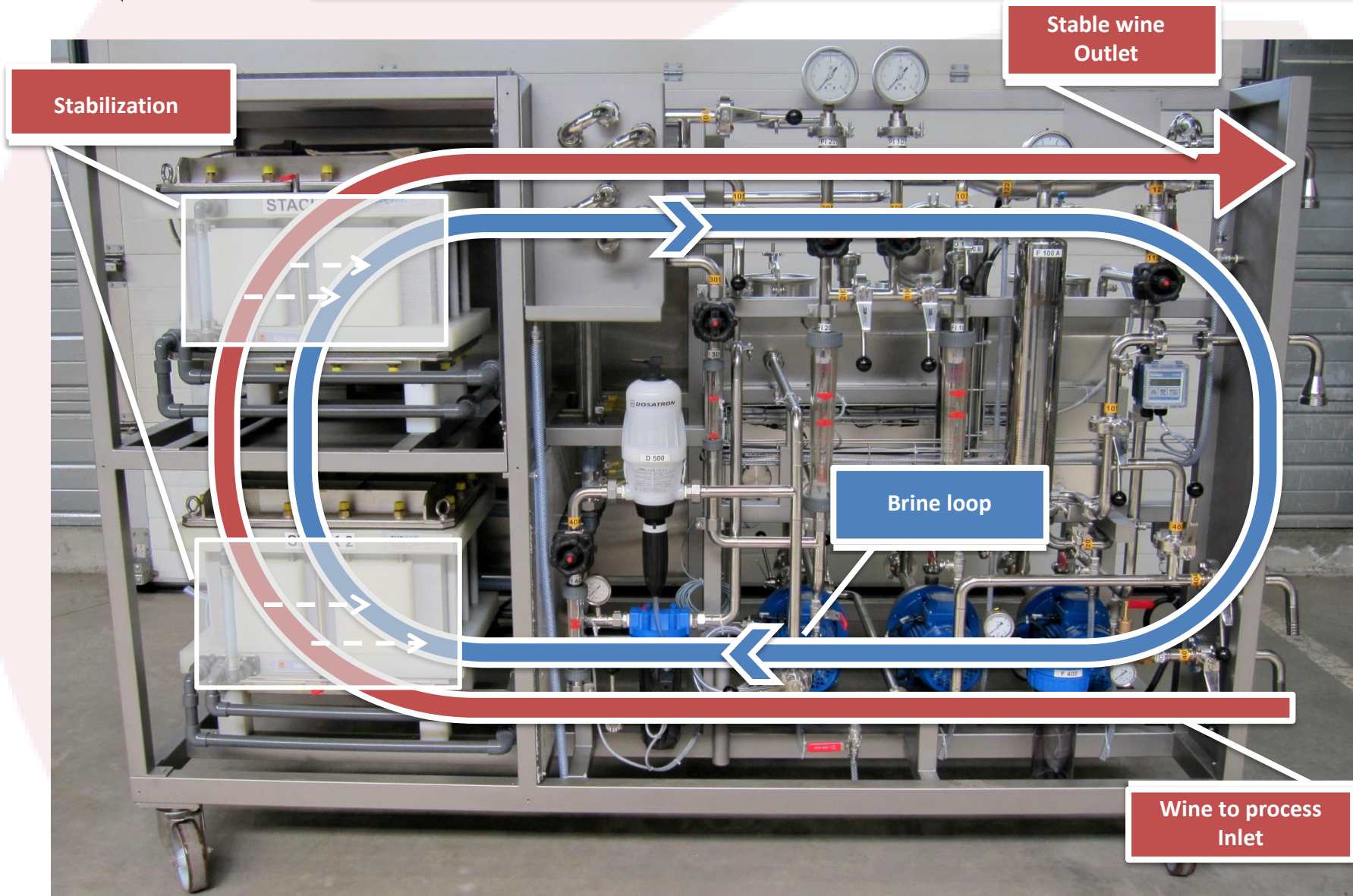
- Wine proneness to develop THK crystals in given temperature/duration conditions
- Reference : refrigeration test (-4°C during 6 days)

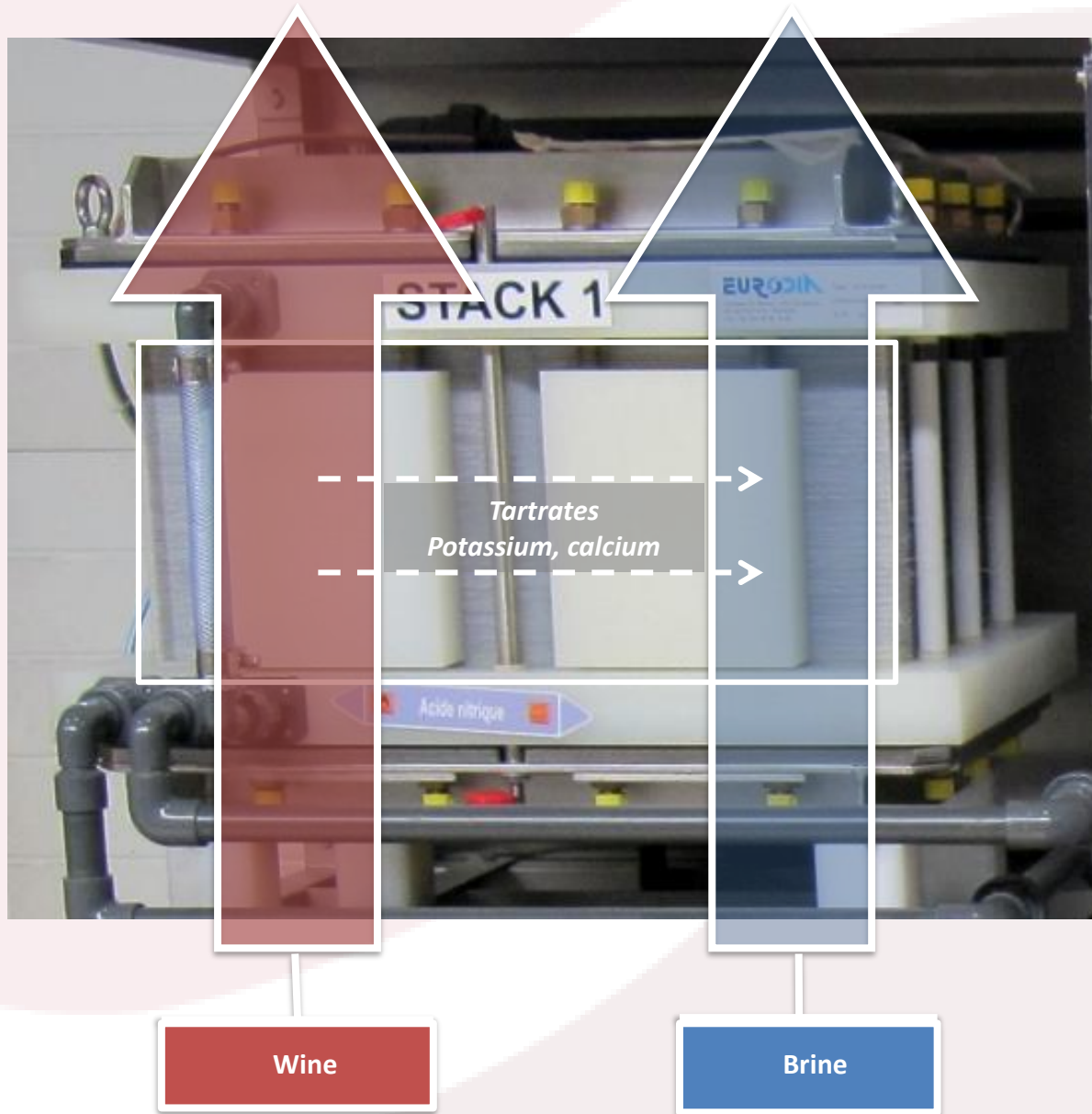


- Additive methods : crystallization inhibitors
  - Metatartaric acid
  - Carboxymethylcellulose (CMC)
  - Potassium polyaspartate (KPA)
- Subtractive methods : reducing precursor compound ( $\text{TH}^-$ ,  $\text{K}^+$ ) rates
  - Cold stabilization : inducing precipitation before bottling
  - Electrodialysis : extracting precursor compounds ( $\text{TH}^-$ ,  $\text{K}^+$ ,  $\text{Ca}^{2+}$ ) with a membrane process

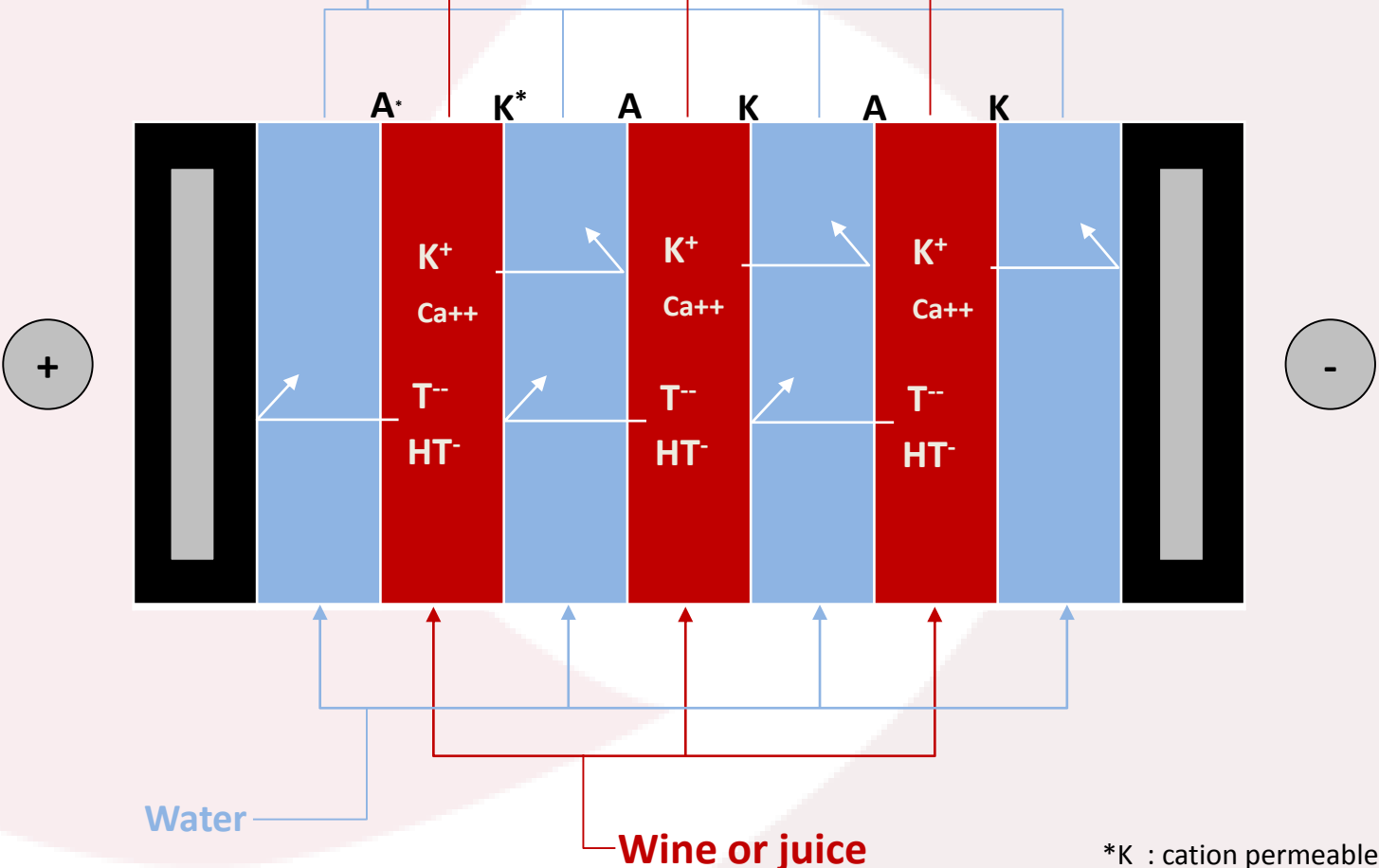








Brine Stabilized wine or juice



\*K : cation permeable membrane  
 \*A : anion permeable membrane

*How much potassium and tartrate to extract?*

-> The level of extraction is measured through a dedicated lab device : the Stabilab<sup>®</sup>.



Test	Step	Returned index
DIT <sup>®</sup> test	Pre-stabilization	Quantitative analysis Precise assessment of wine tartaric instability → Returns treatment rate
ISTC50 <sup>®</sup> test	Post-stabilization	Qualitative analysis Precise simulation of a refrigeration test (6 days at -4°C) → Confirms stability before bottling

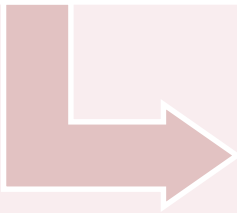


-> 3 steps to reach guaranteed stability

1.  
Analyze



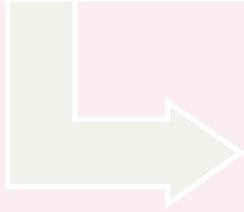
Stabilab DIT<sup>®</sup> test  
Determine treatment rate



2.  
Stabilize



STARS<sup>®</sup> unit  
Process wine to DIT<sup>®</sup> rate



3.  
Confirm



Stabilab ISTC50<sup>®</sup> test  
Check stability before  
bottling

Your stabilization process becomes:

➤ **Rational & Customized**

✓ Treat only unstable wines

✓ Process to wine-specific rates

➤ **Flawless & Secured**

✓ A 3-step process with a guaranteed result

✓ Comply with the wine industry standards with a 6 days, -4°C stability



Want to know more about our Stars® solutions for all winery types?  
Curious about how it could fit into your process ?

- Visit our [website](#)
- Get in [touch with our team](#)

& discover our ranges dedicated to **stabilization**, paired crossflow  
filtration & **pH adjustment**.



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