

Title:

Technological properties of indigenous *Lactococcus lactis* strains isolated from Lait caillé, a spontaneous fermented milk from Burkina Faso.

Authors:

Geoffroy Romaric Bayili^{a,*}, Pernille Johansen^b, Anni Bygvrå Hougaard^b, Bréhima Diawara^a, Georges Anicet Ouedraogo^c, Lene Jespersen^b, Hagretou Sawadogo-Lingani^a

^a: *Département Technologie Alimentaire (DTA)/IRSAT/CNRST 03 BP 7047 Ouagadougou 03, Burkina Faso.*

^b: *Department of Food Science, University of Copenhagen, Rolighedsvej 26, 1958 Frederiksberg C, Denmark.*

^c: *Université Nazi Boni de Bobo-Dioulasso, 01 BP 1091 Bobo-Dioulasso, Burkina Faso*

***Corresponding author:**

Geoffroy Romaric Bayili

Mailing address:

DTA/IRSAT/CNRST 03 BP 7047

Ouagadougou 03, Burkina Faso.

Email: jgbroma2000@gmail.com ;

Phone: (00226) 76437944

Supplementary File

1/ Supplementary Table

2/ Supplementary Fig.

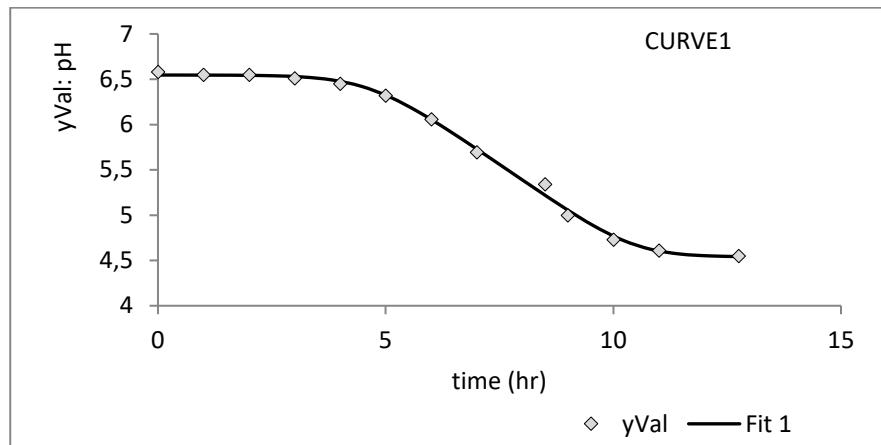
1/ Supplementary Table

Supplementary Table S1. Maximum rates of milk acidification by LAB strains inducing long fermentation time

Strains codes	^b Vm (pH units/h)
SC2	0.08 ^a ± 0.00
S10	0.08 ^a ± 0.00
S11	0.08 ^a ± 0.01
S12	0.08 ^a ± 0.00
S13	0.10 ^a ± 0.03
S9	0.08 ^a ± 0.00

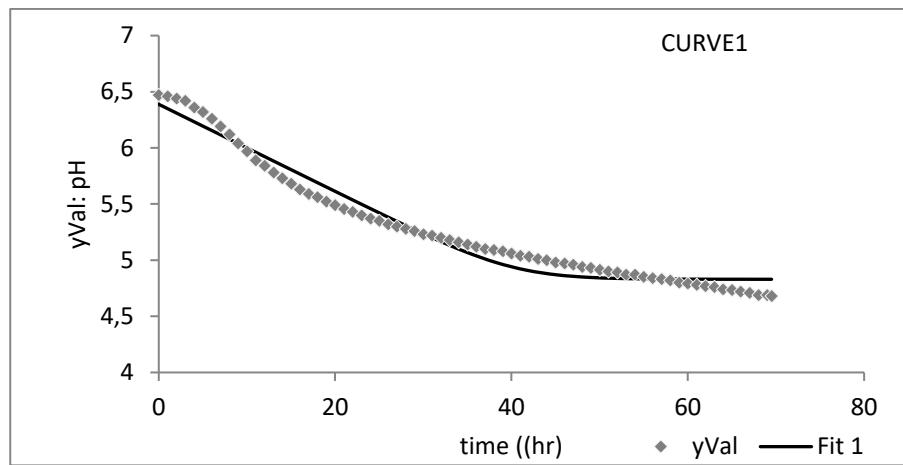
Results are mean values ± standard deviation from 2 different biological samples. Different superscript lowercase letters within same column indicate significant ($P<0.05$) differences between the samples. ^bVm = maximum rate of acidification

2/ Supplementary Fig.



Standard error of fitting: $se(fit) = 0.050$; adjusted R-square statistics of the fitting : $R^2_{stat} = 0.996$

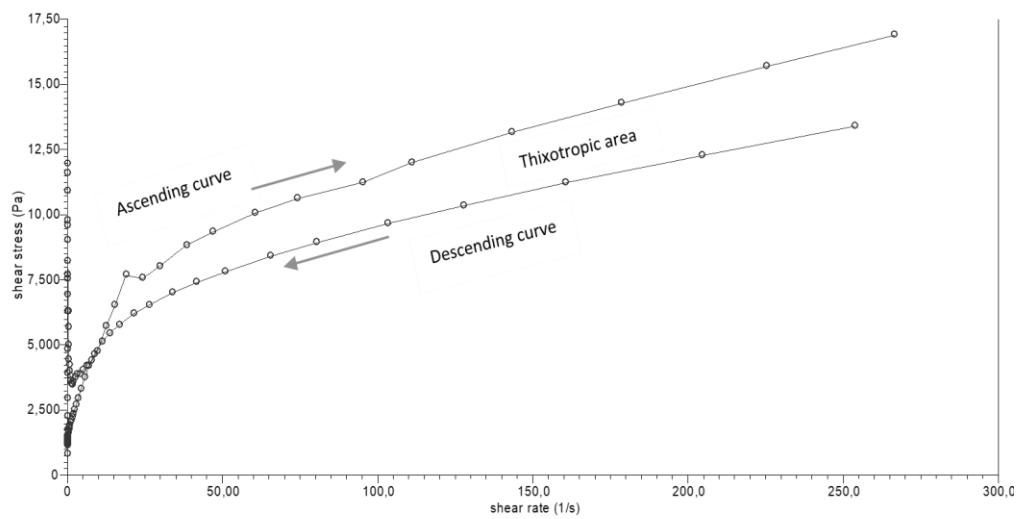
(a)



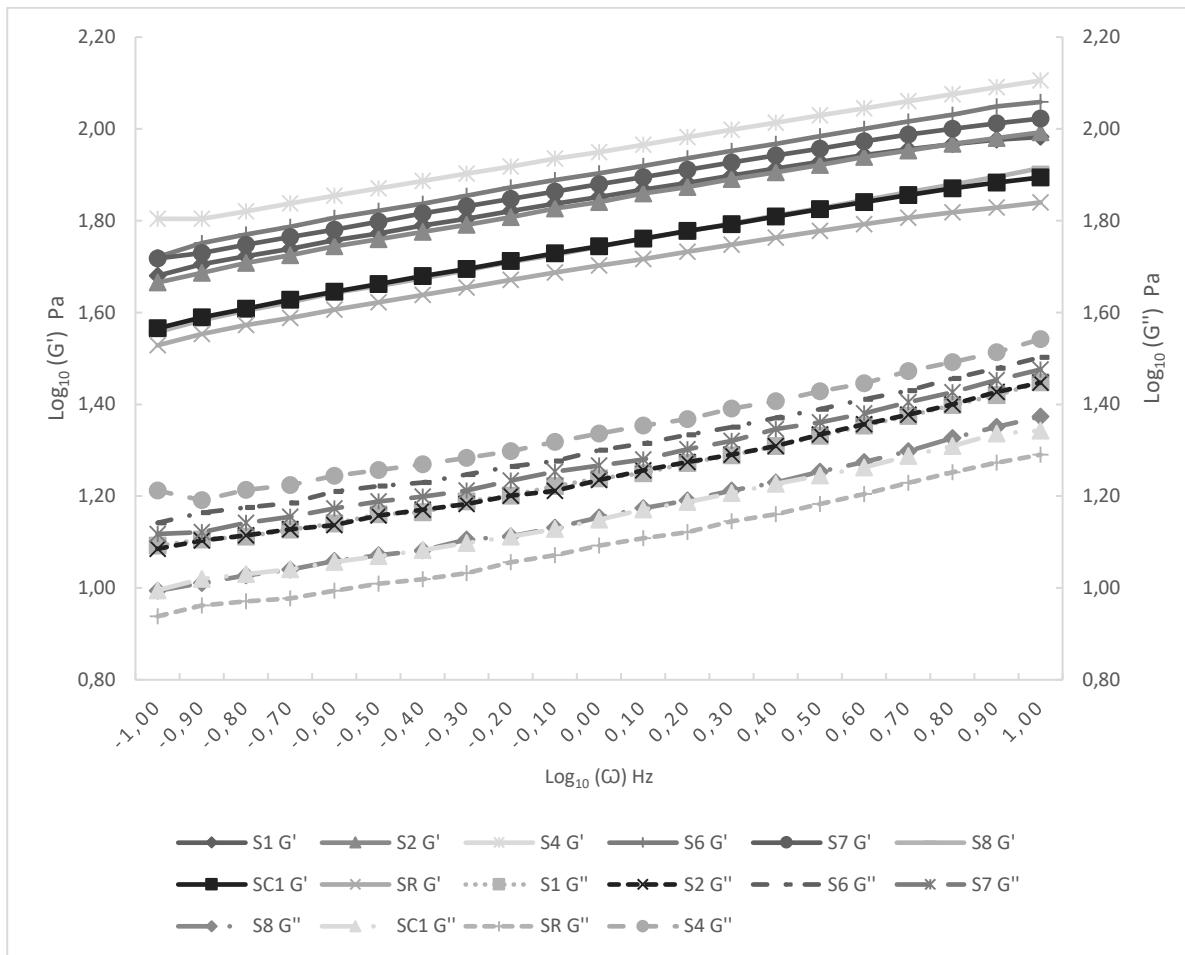
Standard error of fitting: $se(fit) = 0.095$; adjusted R-square statistics of the fitting : $R^2_{stat} = 0.967$

(b)

Supplementary Fig. S1 (a and b). Representative curves of pH decrease during short (a) and long (b) fermentation time generated with DMFit program



Supplementary Fig. S2. Representative flow behaviour of fermented milks produced by lactococci strains used as starter cultures.



Supplementary Fig. S3.

G' , G'' versus angular frequency values of fermented milk samples produced by lactococci strains [S1, S2, S4, S6, S7, S8, SC1, and SR (DSM 4366)] used as starters. Plain curves: $\log_{10} G'$ plots. Dashed curves: $\log_{10} G''$ plots. Analysis were performed in triplicate measurements on two different samples.