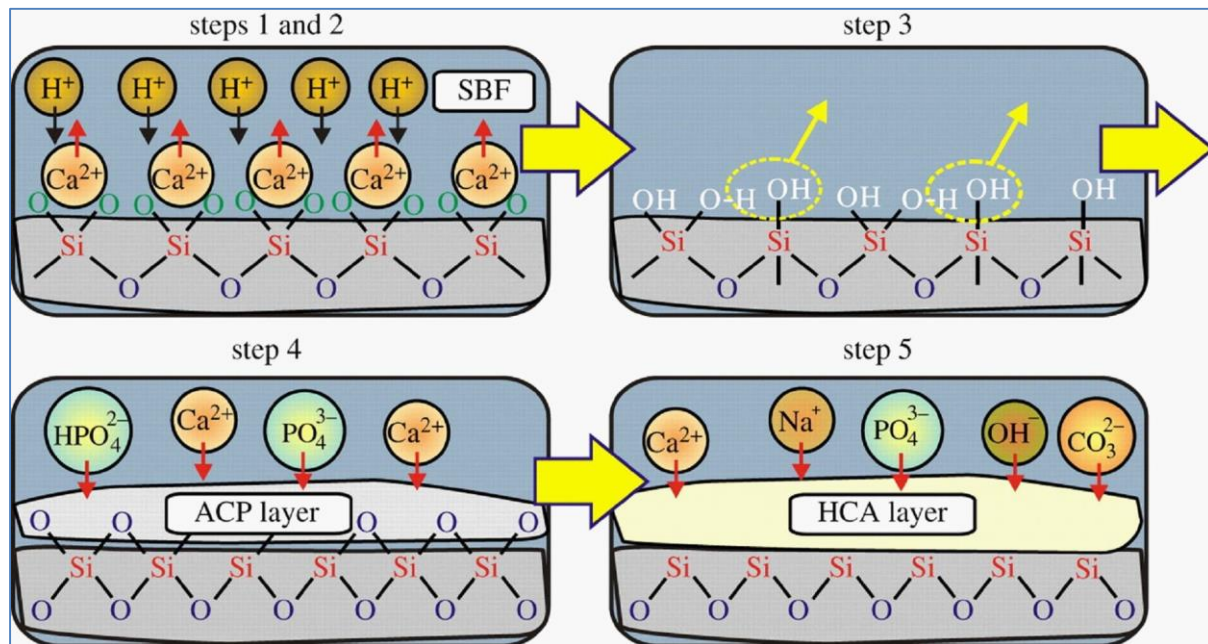


Simulated body fluid (SBF)

A simulated body fluid (SBF) is a solution with an ion concentration close to that of human blood plasma, kept under mild conditions of pH and identical physiological temperature. SBF was first introduced by Kokubo et al., in order to evaluate the changes on a surface of a bioactive glass ceramic.

Ion concentrations of the simulated body fluid and human blood plasma.

Ion	Concentration (mM)	
	Simulated body fluid (SBF)	Human blood plasma
Na ⁺	142.0	142.0
K ⁺	5.0	5.0
Mg ²⁺	1.5	1.5
Ca ²⁺	2.5	2.5
Cl ⁻	147.8	103.0
HCO ₃ ⁻	4.2	27.0
HPO ₄ ²⁻	1.0	1.0
SO ₄ ²⁻	0.5	0.5



Schematic illustration of the reaction sequence leading to HCA formation by SBF according to Hench and co-workers

For laboratory use only.