

I am working on a project and need to know what you get if you add calcium phosphate to vinegar strength acetic acid and water. Then add heat? Any help?

Solution:

The reaction between the salt and the acid will occur under the following conditions: when a precipitate is formed; when the reacting acid is stronger than the one that formed the salt; when the salt is formed by a volatile acid, and the reactive acid is non-volatile.

Due to this, the reaction between substances is not carried out. But some reactions «go» both in the direct and in the opposite direction. So, acetic acid was found to inhibit calcium phosphate deposition. The inhibitive effect related to their concentration in the electrolyte. The supply of heat accelerates calcium phosphate deposition.

Sources:

Wang J., van Apeldoorn A., de Groot K. Electrolytic deposition of calcium phosphate/chitosan coating on titanium alloy: growth kinetics and influence of current density, acetic acid, and chitosan //Journal of Biomedical Materials Research Part A. – 2006. – T. 76. – №. 3. – C. 503-511.