new claims, clean copy

We claim:

1. A fluorophosphate glass with high bone forming ability having metaphosphate units and fluorophosphate ions [$P_2(O,F)_7$] in it made from a composition of (35-65) phosphorus pentoxide - (22-36) calcium oxide - (11-32) sodium oxide - (0.01-12) zirconium oxide - (0.01-20) calcium fluoride, said percentages being molar percentages.

2. The composition for a bone graft substitute, scaffold or orthopaedic implant made of fluorophosphate glass as claimed in claim 1, wherein phosphorus pentoxide is substituted by any of the following: Ammonium dihydrogen phosphate, Phosphorus chloride, ammonium phosphate, calcium phosphate, sodium phosphate, and silver phosphate.

3. The composition for a bone graft substitute, scaffold or orthopaedic implant as claimed in claim 1, wherein calcium oxide is substituted by any of the following: Calcium sulphate, calcium carbonate, calcium fluoride, calcium fluorophosphate, calcium chloride, calcium caseinate, and calcium bicarbonate.

4. The composition for a bone graft substitute, scaffold or orthopaedic implant as claimed in claim 1, wherein sodium oxide is substituted by any of the following: Sodium carbonate, sodium citrate, and sodium fluoride.

5. The composition for a bone graft substitute, scaffold or orthopaedic implant as claimed in claim 1, wherein calcium fluoride is substituted by any of the following: Calcium difluoride, calcium trifluoride, calcium fluorophosphate, and sodium fluoride.

6. The composition for a bone graft substitute, scaffold or orthopaedic implant as claimed in claim 1, wherein zirconium oxide is substituted by any of the following: Zirconium fluoride, zirconium carbonate, zirconium phosphate, and zirconium chloride.

7. The composition of claim 1, wherein the bioactive glass has a composition by either molar percentage or weight percentage:

Compound	Mol.%	Wt.%
P_2O_5	35-65	60-70
CaO	22-36	12-20
Na_2O	11-32	6-20
ZrO_2	0.01-12	0.1-12
CaF_2	0.01-20	0.1-10

8. Any bone graft substitute, scaffold or orthopaedic implant containing the composition of claim 1, wherein it is made essentially of said fluorophosphate glass for use in humans, farm animals or pet animals.