



Southern Illinois University System

### Applications

- Dental repair compounds

### Inventors

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### Contact

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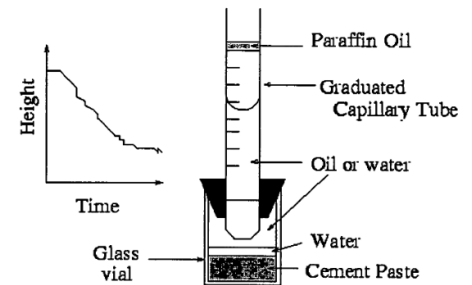
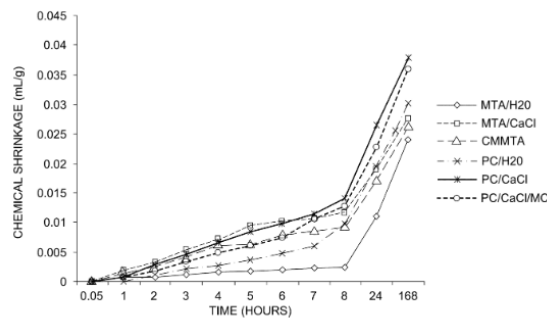
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## Dental Repair Material

Various compounds have been used as dental fill materials for cavities and root canal therapy. Mineral trioxide aggregate (MTA) has been demonstrated to have diverse applications for all fields of dentistry and appears to fulfill most characteristics of an ideal cement due to its unique properties such as tissue compatibility, marginal adaptation, sealing ability, hydrophilic properties, and the capacity to stimulate hard tissue formation. However, presently dental materials such as MTA are difficult to handle due to low viscosity and slow setting times.

### Invention

SIU researchers have developed an improved dental composition and dental composition additive providing for improved handling characteristics, improved viscosity and setting time, properties which make the material useful in the repair of cavities, apex repairs, root perforations and root canals. The addition of effective amounts of a modified cellulose and calcium chloride to available dental repair compounds, such as mineral trioxide compound, results in improved dental composition without affecting the other characteristics of the dental repair compound.



### Key Advantages

- Increases viscosity of dental material
- Increases setting time of dental repair material
- Makes dental repair material easier to use
- Does not appear to adversely affect other characteristics of the material

### Status

U.S. patent #8,436,071 was issued on May 7, 2013. The technology is available for license.

*Other opportunities related to this technology, included but not limited to sponsored and/or collaborative research, may be available. Please reach out to the designated contact identified at left for more information.*