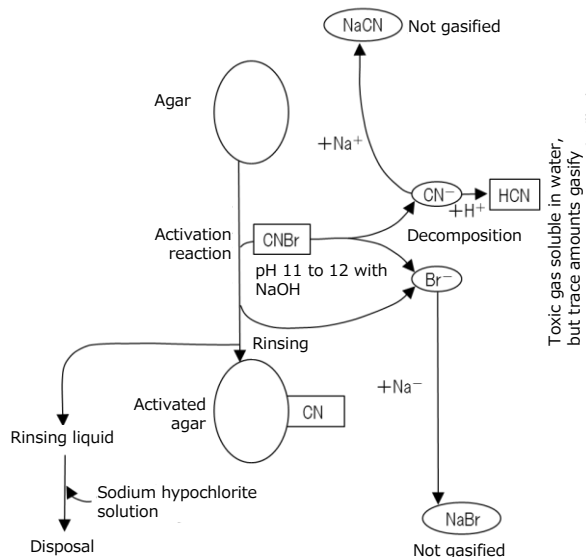
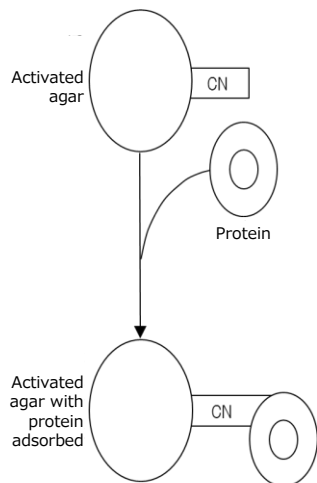


# Case involving hydrogen cyanide poisoning during research work

(a) Outline of adsorbent preparation



(b) Protein adsorption reaction



## [Location of accident]

Campus road just outside the laboratory

## [Cause of accident]

In a post-treatment process following the preparation of an adsorbent, hydrogen cyanide was generated by a chemical reaction in which sodium hypochlorite was added to treat the water from which cyanobromide had been removed.

No measures were in place to prevent exposure. The worker was exposed to hydrogen cyanide.

## [Damage/injuries]

Approximately 30 minutes after completing the work, the worker began to feel nauseous. He was taken to the hospital, diagnosed with cyanide poisoning, and hospitalized.

## Extract from [Preventive measures]

[4] All research staff must undergo health and safety training based on the results of reviews of the health and safety aspects of all work carried out within the research laboratory.



## Riken Keiki Recommendations

We recommend deploying gas monitoring systems and implementing measures to minimize the risks associated with working in environments in which gas may be generated, as highlighted in risk assessments.