



ChromoSep

Introduction of HyperSol Ghost-Eliminator Column

A ghost peak is a peak that looks at a location where we don't anticipate a peak specially in gradient elution". It's a component that shows up in the system and it could show up in the chromatogram. Occasionally it's a sharp peak, occasionally it is a broad peak or even a "hump" and sometimes it's an

The Source of Ghost Peak

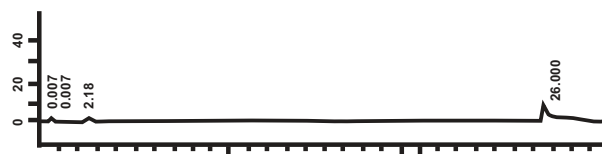
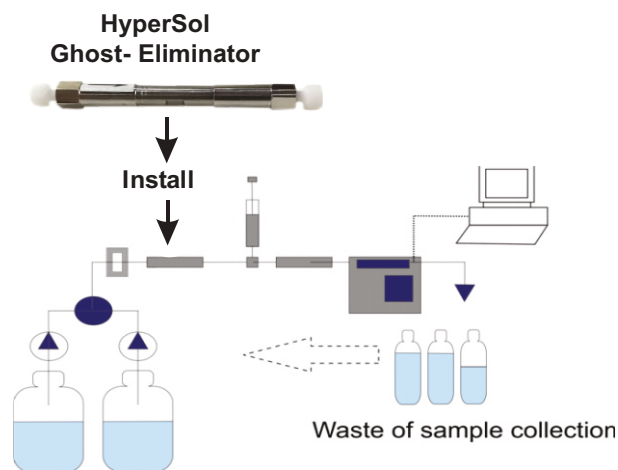
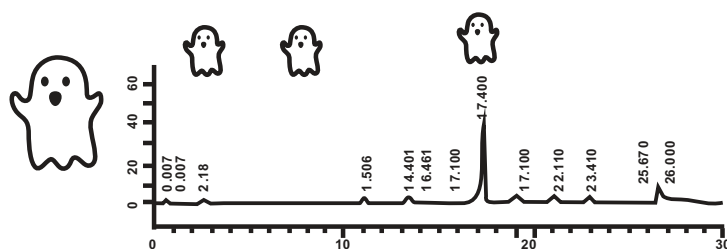
There are a lot of ways for water to deliver impurity in the systems. Storage containers which store such as alkali, salts, acids, and mobile phase additives in the systems for too long causes germs and also develop series of pollutants eventually it impact significantly the Chromatography.

Disadvantage of Ghost Peak

- Instrument will retain polluted.
- Incorrect judgment on sample composition
- Overlapping with the target peak, affecting the Level of separation
- Increase Workload. More validation is Required to Whether the substance is the target determine

Advantage of Using HyperSol Ghost – Eliminator Column

- Clean the Mobile phase.
- Give us true separation results.
- Reduce time of validation.
- Enhance the HPLC Column and Instrument life.



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Ordering Information

Product Code: F62208 | Size: 50X4.6mm

Filtration devices can be found many instruments in the current market, mainly for the interception of particles that are solid, but the pollutants that cause ghost peak can not be intercepted by them.

We developed column using powerful adsorption of weak polar and Non-Polar organic impurities without changing the mobile phase component (without comprising ion to reagent), and also secondary purification of this device and the mobile phase. Gently eliminate such pollutants, decrease the possibility of the appearance of ghosts, and also extend the life span of HPLC columns and instruments.

Important Points

1. The Ghost column must be installed between the gradient mixer and the sampler. Please ensure that the column is installed before the sampler. If it is installed after the sampler, it will have a strong adsorption effect on the sample.
2. Please use 80:20 methanol : water to rinse Ghost Column Impurity trap column, 1 mL/min flow rate after 20 minutes, connecting to the device.
3. If the mobile phase uses an ion pair reagent, it may adsorb the ion to the reagent and affect the retention time or peak type of the target. In this condition, please use the column according to the chromatographic effect. Advisable to use ghost column from Method development hence it will not impact the developed method
5. The life span is related to the chromatographic analysis conditions, the mobile phase brand, and its purity. If the capture effect is worse, it is recommended to replace it in time.
10. Column life increase or number of injection increase by 30%.
11. Revalidation due to ghost peak reduces by 50% if it is planned during the method development.

Frequently Asked Questions:

1. When detecting different varieties, are the gradient in different flow need to be removed?

A: There is no need to deliberately remove it unless there is a change in peak position that does not meet the experimental requirements (such as the flow phase contains ion pairs of reagents).

2. Need to remove from the gradient to the isocratic condition?

A: There is no need to remove it without affecting the separation effect. It because the elution ability of the mobile phase is the same under equal conditions. Therefore, the ghost peak can not be detected generally, but it does not mean that there is no contaminant in the mobile phase.

Column Performance

The following example shows that the column can be effectively captured after being installed in the mixer.

An impurity in the flowing phase. Spectrum xxx column : C18 4.6 x 250 mm, 5um

Flow phase :

A) 25 mM phosphate (potassium solution pH 4.0 acetonitrile = 9/1

B) Flow phase: water/acetonitrile 1/9 lowrate:1.0mL/min Column

temperature : 250C

Detection wavelength: UV 210 nM

6. Ghost-Column is a purification component of the instrument, which is equivalent to an online filter on the instrument. It is only an online filter that can only filter solid particles, and it can not only filter solid particles, but also purify organic pollutants in the system. Better protection for the instrument and column.
7. When using Salt buffer, pay attention to the use of a high proportion of water flushing after test, to avoid buffer salt precipitation, resulting in packing congestion.
8. When the effect of small column capture is found to be low, you can try to flush the small column with 100 % acetonitrile, and the outlet of the column should not be connected to the instrument.
9. Ghost column reduces the instrument maintenance significantly (by 50%). If solid particles will not enter to auto injector eventually life of auto injector will improve by two times. Major maintenance in HPLC is only with auto injectore almost close to 70% due to solid particles which damage the injector seals ,needles and loop majorly.

3. In the gradient system, resulting in the addition of a mixed lag volume to affect the separation effect?

A: Generally, Ghost-Filter is connected between the mixer and the sampler. The size of the 4.6 50 mm specification is 400ul, which has little effect on the normal detection. If there is any effect, connect it to the mixer or before the switch valve. Water phase channel.

4. Is there any requirement for connecting the pipeline?

A: There are no specific requirements. It is recommended to use the Peek tubes and joints used daily by liquid chromatography to avoid the occurrence of metal parts stuck.