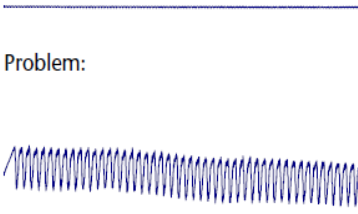
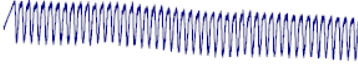
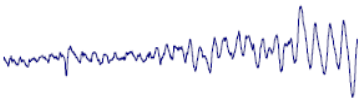
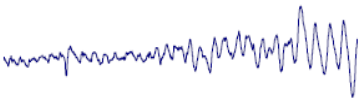




عیب یابی در HPLC

مشکل شماره ۲: نوسان (نویز) در خط پایه (Baseline noise)

Problem	Probable cause	Troubleshooting
Problem No. 2: Baseline noise - regular		
Regular: 	<ol style="list-style-type: none">1. Air in mobile phase, detector cell or pump.2. Incomplete mobile phase mixing.3. Temperature effect (column at high temperature, detector unheated.)	<ol style="list-style-type: none">1. Degas mobile phase. Flush system to remove air from detector cell or pump.2. Mix mobile phase by hand or use less viscous solvent.3. Reduce differential or add heat exchanger.
Problem: 	<ol style="list-style-type: none">4. Pump pulsations.5. Pressure close to maximum.	<ol style="list-style-type: none">4. Clean or exchange check valves of the pump head. If problem still persists, incorporate pulse dampener into system.5. Minimize back pressure by reducing flow rate or heating the column.
Problem No. 2: Baseline noise - irregular		
Regular: 	<ol style="list-style-type: none">1. Leak.2. Gradient mode: Mobile phase contaminated, deteriorated or prepared from low quality materials.3. Detector electronics.	<ol style="list-style-type: none">1. Check system for loose fittings. Check pump for leaks, salt build-up and unusual noises. Change pump seals if necessary.2. Check make-up of mobile phase.3. Isolate detector electronically. Refer to instruction manual to correct problem.
Problem: 	<ol style="list-style-type: none">4. Air trapped in system.5. Air bubbles in detector.6. Detector cell contaminated. (Even small amounts of contaminants can cause noises.)7. Weak detector lamp.8. Column leaking packing material.	<ol style="list-style-type: none">4. Flush system with strong solvent.5. Purge detector. Install back pressure device after detector. Check the instrument manual, particularly for RI-detectors. Excessive backpressure can cause the flow cell to crack.6. Clean cell.7. Replace lamp.8. Replace column and clean the system.