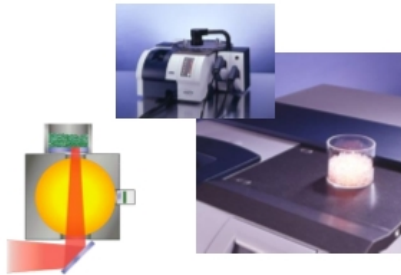


布鲁克近红外在聚合物化学中的应用

TANGO-R
积分器
(线边, 工厂实验室)



MPA
积分球
(R&D, 中心实验室)



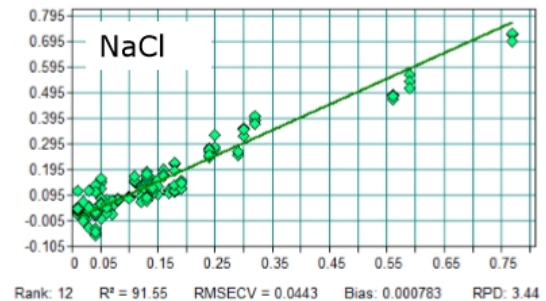
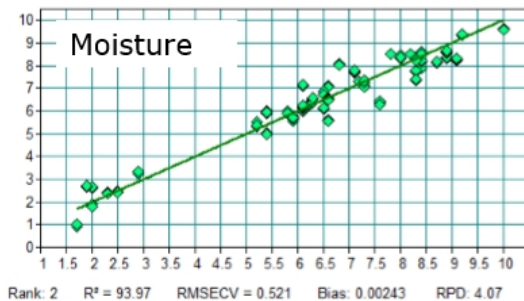
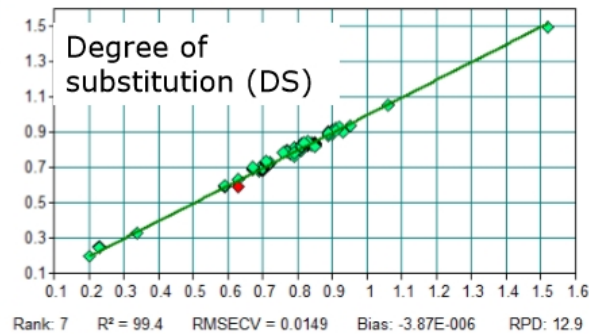
Matrix-F
漫反射探头, Q412
(在线)



布鲁克近红外光谱仪在聚合物化学中运用至以下方面:

- 羧甲基纤维素(取代度 DS, 水分, NaCl); 尼龙 (水分); 聚酰胺(COOH, NH₂, viscosity), 聚乙烯(PEEP, PEP, PE), 等检测
- 聚合物的定性鉴别

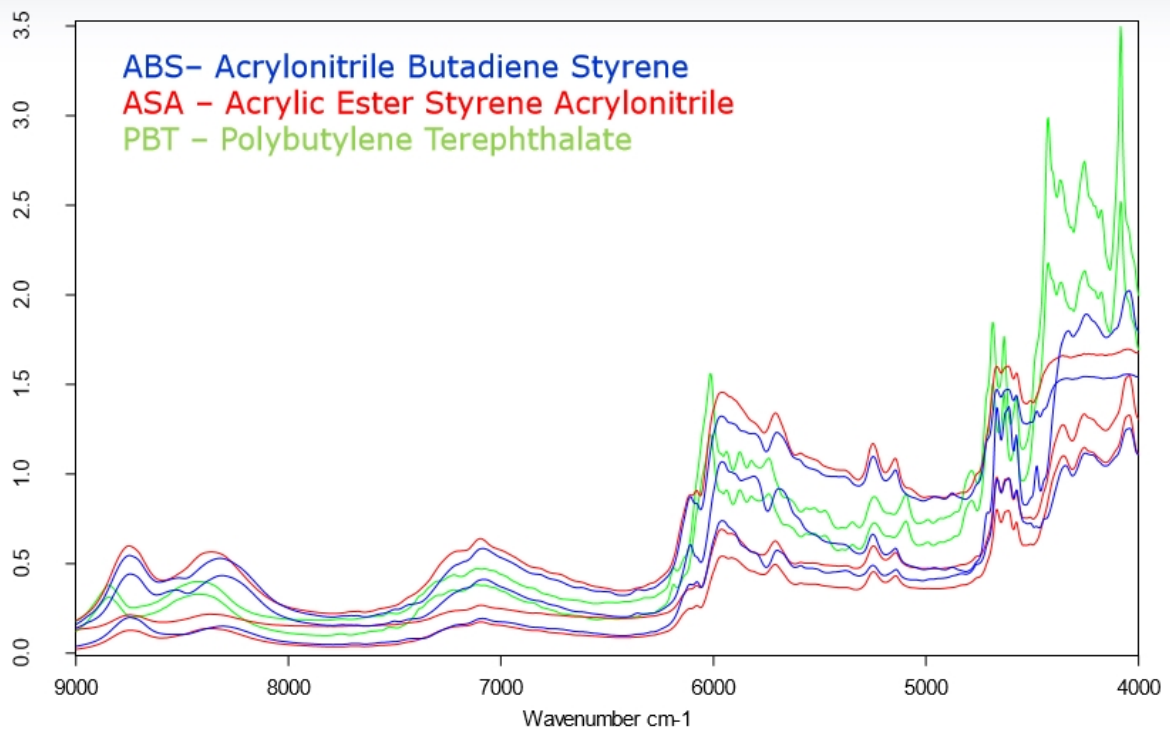
羧甲基纤维素 (CMC)



聚合物鉴别

应用布鲁克近红外光谱分析技术，可以鉴别以下物质（不少于）：

- ABS (Acrylonitrile Butadiene Styrene);
- ASA (Acrylic ester Styrene Acrylonitrile);
- PA6, PA66 (Polyamide 6, Polyamide 66), PBT (Polybutylene Terephthalate);
- PC (Polycarbonate); PC+ABS (Copolymer);
- PE, HDPE, LDPE (Polyethylene incl high/low density);
- PET (Polyethylene Terephthalate), PMMA (Poly(Methyl Methacrylate)), POM (Polyoxymethylene);
- PP (Polypropylene); PPE+PA (Copolymer) (Poly(p-phenylene ether)+PA); PPE+PS (Copolymer);
- PS, HIPS, SB (Polystyrene, High Impact PS, Styrene Butadiene);
- PUR (Polyurethane); PUR Foam;
- PVC (Polyvinyl Chloride), RIMG (PUR-RIM Amin), SAN (Styrene Acrylonitrile resin);
- SMA (Polystyrene Maleic Anhydride);
- SMC (Sheet Molding Compounds); SRIM (PUR-RIM);
- TPU (Thermoplastic Polyurethane Elastomers)



布鲁克近红外光谱在塑料行业的运用包含以下方面：



Additives 添加剂

(Antioxidizings, Lubricant 润滑剂, Modifier 改性剂, ...)

- Filler 填充剂
- physical Properties (Density, Viscosity, ...) • averaged Molecular Weight

• MFI (Melt Flow Index) 熔融指数

• Humidity 湿度

• Content of Carboxyl End Groups 末端羧基含量

• OH-Number 羟值

• Acid Number 酸值

• Monomer Content 单体含量

Stabilizer Content 稳定剂含量

• Content of Rest Monomer • Density • Viscosity

• MIBK (Methyl-Isobutyl-Ketone)

• WPE (Weight per Epoxy) 环氧当量

• MBCI (Poly(Etherurethane)Diisocyanate)