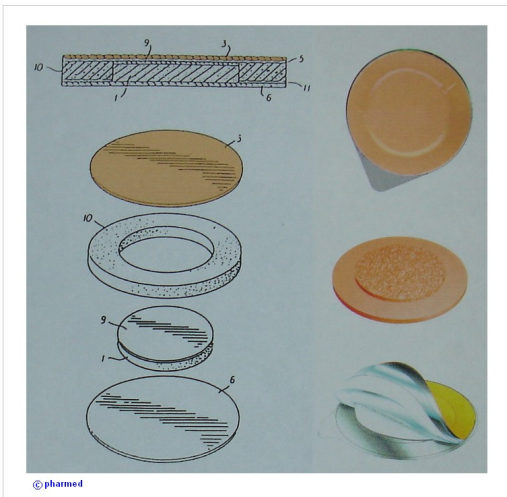


Illustration of the first Lipid Matrix Patches



Commercial Samples of the first OTC Back Pain Patch in the USA



Contextual patents R.K. Liedtke: DE 3539533/ DE 3503111/ EP 0205974/ US 4,765,986/ DE 3716 575/ DE 3811564/ EP 96109709.4/ US Ser. 08/679,438/ EP96111437.8/ US.Ser.08/682,351/ EP 96111436.0/ US 5,776,952 / DE P19545180.5

A publication on the first market introduction of LidoPAIN® Patch, New Jersey, USA (1995)

# Physician introduces pain-relief patch

When Rainer K. Liedtke was a young boy growing up in Germany, it is doubtful that he thought he would be widely hailed as Europe's leading expert in new drug technologies during his career. But having developed such innovative drug therapies as a transdermal insulin patch, a new topical application technique for hormone replacement therapy, a new medical indication for beta blockers, and the new topical LidoPAIN Patch, he has earned the unofficial title.

Currently founder and president of pharmed GmbH in Munich, Germany, and American Pharmed Dr. Liedtke Inc. (APL) in West Caldwell, Dr. Liedtke considers stress and pain relief the areas of special interest in his varied career. His desire to create new ways of relieving pain is manifested in his latest development in pain therapy, the LidoPAIN Patch.

With lidocaine, a therapeutic and well-known safe local anesthetic, as its active ingredient, the LidoPAIN Patch is applied directly to the skin on the pain point. It temporarily interrupts the "pain signals" from pain-receptive nerve fibers.

The topical LidoPAIN Patch releases lidocaine directly over the painful area, allowing the medicine to work only on the pain, and not on the entire body. The flesh-colored, round adhesive patch is 2-1/2 inches, and unlike ingestive therapies such as aspirin, acetaminophen, and ibuprofen, which are absorbed into the bloodstream and travel throughout the entire body, the LidoPAIN Patch will not cause side effects such as an upset stomach, because it works only on the painful area where relief is needed. Dr. Liedtke's expertise in the field is extensive. He received his medical degree from the University of Bonn and was a frequent lecturer on pharmacology at the University of Regensburg. He has also authored and edited several medical books on pharmacology and drug therapy and written several original scientific articles. Before starting pharmed, Germany and American Pharmed, he held positions as director of Clinical Research at Squibb (Europe), and medical director of Central Europe for Lilly. He holds numerous international patents in new drug technologies.

Among his other accomplishments, Dr. Liedtke organized medical support for Capoten, currently ranked as one of the most successful cardiovascular drugs in the world.

Dr. Liedtke is currently working on a new technique for an innovative therapy, combining state-of-the-art computer technology with drug delivery systems.

German physician Rainer Liedtke, creator of the LidoPAIN Patch.

THE SUNDAY STAR-LEDGER, June 4, 1995

The schematic diagram illustrates a mass production process for the LidoPAIN Patch. It shows a sequence of steps: 1. Raw material input, 2. Mixing, 3. Extrusion, 4. Cutting, 5. Drying, 6. Adhesive application, 7. Final assembly, and 8. Packaging. The diagram includes various mechanical components like rollers, conveyors, and storage tanks, with arrows indicating the flow of the process.

Scheme of the new mass production