



Australian
National
University



DR WANDA MAREE HENRY (1962-1996)

**The life, aspirations, achievements and tribulations
of an outstanding Australian woman scientist**

ANU College of
Physical &
Mathematical
Sciences

“

**... by blazing an academic trail
in Australia in the 1980's, Wanda
has encouraged young women and
provided the opportunity for them
to achieve in the fields of science
and engineering. ”**

Professor John Love
The Australian National University.

Wanda Henry created opportunities in life through determination and hard work. Though her life was cut short at the early age of 34, she had made each day count. She knew that each day had to count, and pursued life and all it had to offer with an unbridled passion that touched all who came in contact with her. She never conceded defeat but consistently plucked up the courage it took to move forward. Her achievements, in academia and the wider community, may seem incredible for such a short life and are the result of her persistence, of her determination, her motivation and her courage. This is a story for anyone who has a sense of their own self-worth and capabilities.

Wanda was raised in Australia in the 1960s and 1970s within the supportive embrace of a family who wanted her to achieve what she desired. She was an everyday girl who was raised in an everyday family in an everyday environment. There was no 'silver platter'; there was only a life full of opportunity. Wanda's goal was to take as much as she could and later to give back in the same vein.

Perhaps the greatest legacy Wanda has left is to show by her example that most of what you want out of life is achievable – if you put your mind, heart and soul into it. If any lessons are to be learned by her life, it is that each day is a blessing, life is to be lived and all dreams are valid. Further, you must keep your life in balance and always remember who you are – a daughter, a sister, a friend and a member of the community. Commitment to family, friends and community is as integral to self-worth as commitment to personal goals. You should try to structure your life so that you can work with all three. Then you will be thrice as strong and have thrice the sense of achievement.

THE EARLY DAYS

Wanda Maree Henry was born in Gympie, Queensland on 25 January 1962 to Robert and Margaret Henry. Her first few years were spent in Maryborough, Queensland, one of several moves brought about through her father's involvement with the Australian gas industry. At the age of four, the family moved to Warrnambool in Western Victoria. Here Wanda began her ballet tuition in the Royal Academy of Dance that was to become one of the great enjoyments and successes of her life, as well as the driving force for any other pursuit she became involved in whether academic or in the broader community. In 1968, she was attending school in Sale, Eastern Victoria, but finished that year back in Maryborough, Queensland. With the family now more permanently based in Maryborough, primary and secondary education could be completed without further disruptions.

Ballet

Wanda's outside interests expanded to include music; she learnt the piano. She was a member of the Girls Friendly Society and also taught at the local Sunday school. However ballet that had come into her life at the age of four, remained a major part of her life.

Over the years, she completed her Royal Academy of Dance (RAD) qualifications examinations. She also took part in many eisteddfods, both local and state, winning numerous prizes and awards for her exemplary performances. The principal

of her dance school, Ceone McRoberts, produced many recitals, and all who took part gave polished performances that had the public returning year after year for each new production. As a result of this, Wanda and Ceone became lasting friends.



A ballet pose in 1973

ALDRIDGE STATE HIGH SCHOOL (1974 - 1979)

All through her school years, Wanda completed each year giving 100 per cent of herself, acknowledged at successive speech nights. During her five years at Aldridge State High School in Maryborough, she set an unbelievable perfect record of 100 per cent across all subjects, a record which has not been equalled to this day. Wanda was dux in Year 12 and therefore dux of the school. The local QUOTA branch invited Maryborough's senior girls to take part in their Woman Student of the Year competition, which she won, giving her the opportunity to represent the City of Maryborough at the inter-State level. There were also State and National mathematics competitions, which she excelled at and

enjoyed immensely. Gaining prizes and awards here gave her the opportunity to attend the Mathematics Summer School at ANU in Canberra in her final two years at Aldridge, 1978-79.

After completing Year 12, Wanda took a year off in 1980 which she spent in Rockhampton, Queensland, to study at Valerie Hanson's Classical Dance Academy. She also completed her final RAD examination at a very high level and became qualified to teach dancing which she loved and enjoyed so much. In addition, she found time to work as a teachers' aid at the local primary school, to tutor high-school mathematics, and to help out in the office of a local doctor using the then relatively new computer-based software.



Final year class at Aldridge State High School, Maryborough, Queensland in 1979. (Back row: G. Meredith, K. Ross, B. Faint, G. Scammells, G. Dale, R. Christmas, W. Kenny, J. Gadd and W. Date. Front row: S. Baker, W. Drinkwater, W. Henry, R. Hodgkinson, E. Wickham, S. Lawgall, G. Duncan. In front: A. Prentice.)

THE AUSTRALIAN NATIONAL UNIVERSITY (1980 - 1984)

During 1980, Wanda applied for and was successful in winning a prestigious National Undergraduate Scholarship tenable at ANU. Only 25 of these awards were offered throughout Australia each year and each provided four years' financial support. In 1981, Wanda moved to Canberra to start a Bachelor of Science (BSc) degree in mathematics and physics and took up residence on campus at Burgmann College.

During lectures, she immediately stood out from the other students with her inquisitive mind, firing hard questions at her lecturers and demanding a satisfactory reply. Outside of lectures, she became the organiser in the students' Physics Society, generating a succession of interesting and topical speakers in science.

Wanda rapidly settled into college life and then looked around to see where she could contribute her off-campus interests. She helped people to enjoy jazz ballet taught at a local RAD, as well as school class work, recitals, examinations and eisteddfod work. She assisted gymnasts with their floor work, and supported the scout movement in their gang show presentations. Wanda had uncannily acute hearing that gave her a strong feel for music, and how each piece should be portrayed, whether be it classical, jazz or just fun things.

She also became an Explainer at the innovative Questacon science exhibit in Canberra during her undergraduate years, satisfying the curiosity of the visitors

by revealing how the various hands-on experiments worked. Questacon has blossomed since to become Questacon – The National Science and Technology Centre, and a major attraction for visitors to Canberra.

Wanda also found time to care for her elderly friend Tom, a former entomologist with CSIRO, whom she met at Questacon where he was also an explainer. During her remaining time in Canberra, she cared for Tom and ensured that he was looking after himself at home.

At the end of her third year at ANU in 1983, Wanda was awarded a first class BSc Honours degree and two University prizes. These comprised the Shell Prize for the best student in physics, theoretical physics and chemistry, and the Priscilla Bok Prize for the best female student qualifying for a Bachelor degree. She also undertook tutoring in the Mathematics Department at ANU to help first and second year students; a role which continued for the next six years.

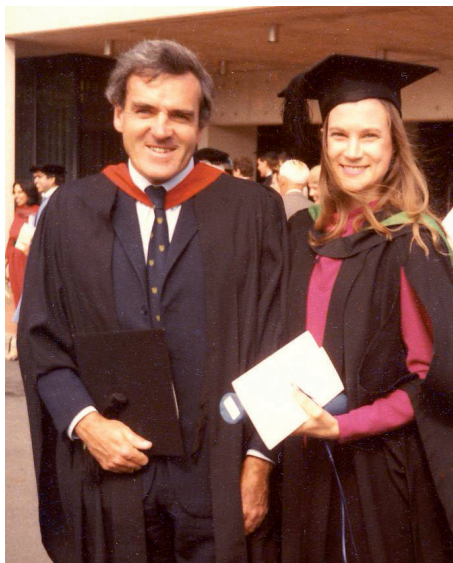
Before embarking on her fourth year as an Honours student, Wanda was awarded a Summer Vacation Scholarship to work in the Department of Applied Mathematics within the Research School of Physical Sciences and Engineering. This School is part of the University's Institute of Advanced Studies, which has a worldwide reputation for the quality and innovation of its research.

It was during the 1983 summer break that Wanda decided she wanted to work in the rapidly-developing high-tech area of optical communications. She approached Professor John Love of the Optical Sciences Centre and arranged to undertake her Honours project with him as supervisor. As it turned out, this encounter was the beginning of a very successful, long-term collaboration. John also became a close friend and mentor to Wanda throughout her future career.

During 1984, Wanda worked very successfully on her Honours year courses and project, as well as continuing her varied extramural activities. As a result, she won first class honours and was awarded the Tillyard Prize by ANU for the honours student making the most contribution to the University. In addition, she received the Shell Postgraduate Award (New South Wales) and was also the Caltex Woman Postgraduate of the Year New South Wales representative.

The Honours year project thesis became her first international refereed research publication, which appeared in a leading British journal, the *Journal of Optical & Quantum Electronics* (1 – see numbered list of publications at the end of this brochure).

She also attended her first major conference, the Australian Conference on Optical Fibre Technology (ACOFT) in Wollongong in December 1984 where this work was presented.



Degree Day 1984 at ANU with honours' supervisor
Dr John Love

THE INSTITUTE OF ADVANCED STUDIES, ANU (1984-1988)

At the end of 1984, Wanda was awarded an Australian Postgraduate Research Award to undertake a PhD in fibre devices for optical communications. She also won a supplementary Postgraduate Scholarship from the Australian Telecommunications and Electronics Research Board, an organisation strongly supported by leading Australian organisations, including Telstra and CSIRO.

At the beginning of 1985, she commenced her doctoral work as a postgraduate student in the Optical Sciences Centre at ANU under the supervision of Professor John Love. She also took up residence in Graduate House, popular accommodation for both Australian and overseas postgraduate students, where she quickly made many new friends. At the end of 1985, she attended the ACOFT in Perth, Western Australia, and began to make many contacts in the Australian optical communications community in both academia and industry.

In 1986, the first fruits of her doctoral research resulted in the publication of results in the prestigious British journal *Electronic Letters* [2]. These and other results were also presented at an international meeting in Beijing, China [3]. She also started to run tutorials in mathematics for science and engineering students at the Australian Defence Force Academy in Canberra. The year culminated with Wanda winning the inaugural Best Student Prize at ACOFT in Geelong [4].



As a research student in her office at ANU in 1986

The following year saw Wanda working steadily towards the completion of her PhD thesis whilst maintaining her broad range of other activities. Early in 1988, she presented a paper at the Applied Mathematics conference of the Australian Mathematical Society in Leura, NSW, with two unexpected outcomes. First, she won the coveted T.M. Cherry prize for the best student paper presented at the conference, and second she was offered a research position at the University of Arizona at Tucson, USA by the Key Speaker, Professor Alan Newell. Finally that year, a collaborative paper appeared which explained a fundamental behaviour of light in a fibre [5].

THE UNIVERSITY OF ARIZONA AT TUCSON, UNITED STATES (1988 - 1989)

With this incentive, Wanda completed her PhD and moved to the US to take up the Postdoctoral Research position in Arizona. She was based in the Department of Mathematics, which was close to the internationally respected Optical Sciences Centre, where she developed new collaborations with American colleagues. During her time in Tucson, the emphasis of her research encompassed the rapidly growing area of non-linear effects in optical fibres.

Wanda adjusted to the American way of life and made many new friends socially, although her ballet aspirations were frustrated by the lack of recognition of her RAD qualifications in the US. Professionally

she travelled to several local conferences within southwest America, where she presented her new research work [6], and continued to expand her network of professional colleagues.

The culmination of the year, however, was to travel to Cambridge University for a formal interview, which resulted in her being offered a four-year Research Fellowship in King's College. This award enabled her to work in optical communications in the University Engineering Department. As a result, Wanda moved to the UK in September 1989. During the year, two papers appeared in international journals based on the remaining research work on optical fibres for her PhD [7,8].



THE UNIVERSITY OF CAMBRIDGE, ENGLAND (1989 - 1993)

The academic life in Cambridge revolves around university departments and the residential colleges. Wanda was a Research Fellow in Kings College, where she had a small flat or 'set' in King's parade above its small shops and opposite the college chapel. She could also dine with the other Fellows of the college in the magnificent dining hall. She supervised engineering undergraduates in the college in mathematics, and undertook her research principally in the University Engineering Department.

Wanda was a frequent visitor to the swimming baths at Kings College Choir School, and set a precedent by crossing the college turf dressed only in her swimmers. (Only Fellows are allowed to walk on the college grass in the courtyards.) She also became an accomplished punter on the river Cam.

During her four years in Cambridge, she began experimental work into optical fibres in addition to her theoretical work [9,10], and thereby became a more broadly-based researcher. In 1991, Wanda was an invited speaker at the International Congress on Industrial and Applied Mathematics (ICIAM) [11], and there first met mathematician Professor Ken Shaw from Virginia Tech University.

Professor Shaw recalls:

I met Wanda at the ICIAM Symposium on Waveguides in Washington DC in the summer of 1991. The symposium had been organised by Professor Alastair Wood (Dublin City University). I had a chance to talk at some length with Wanda at a symposium party in the home of Frank Olver. We discovered a common interest in waveguides and began keeping in touch through email. Wanda had infectious enthusiasm for waveguide research and invaluable experience in laboratory experiments. She taught me many things about elliptical core fibres that I would never have learned otherwise.

As a result of this chance meeting, Wanda started collaborative research with Professor Shaw into a special type of optical fibre, later leading to a significant publication [12]. In the same year, Wanda gave a paper [13] at the thirty-third British Applied Mathematics Colloquium held at Oxford University.

During her time in Cambridge, Wanda was able to make almost yearly visits back to Australia to continue other collaborations [14,15], and also to attend the ACOFT. It also enabled her to maintain contact with her many colleagues and friends, and, indirectly, to plan her eventual return to Australia.



Punting on the river Cam along the Backs behind Kings College

Whilst at Cambridge, Wanda was host to numerous friends and colleagues who visited. Typical of her generous hospitality are these comments from Dr Peter Krug of the University of Sydney:

I only slightly knew Wanda when I mentioned to her in early 1992 that I would be spending a few weeks in the UK later in the year. Without hesitation, she invited me to visit her in Cambridge. When I explained that I would be accompanied by my wife, Lisa, and 15 month old daughter, Ilana, Wanda insisted that all three of us stay in her set for a couple of days. The hospitality she demonstrated, including guided tours of the inside and roof of King's College, and her endless stream of inside information about life in Cambridge provided us with a lasting memory, which we shall always treasure.

In addition to her academic work, Wanda took an early interest in the organisation 'Winter Comfort' which provides sustenance to the disadvantaged in Cambridge society. She soon became a staunch supporter and undertook the procurement of food resources to provide the regular evening meals. She also became involved in the Kings College chapel as a server at its services, including the world-famous service of Christmas lessons and carols.

During 1992, Wanda attended a conference in Ankara, Turkey, organised by a former colleague from Canberra, Dr Ayhan Altintas, and presented a research paper [16], which later appeared in a research journal [17]. Later that year, a review paper also appeared [18]. This paper represented a comprehensive survey of research into sound waves, which can also propagate in optical fibres, and was the first paper Wanda wrote in Cambridge. Another paper appeared that year [19], which related to research with one of her Engineering Department colleagues, Dr Adrian Travis.

In her remaining time at Cambridge, Wanda continued to work on problems linked to the experimental research in optical fibres undertaken by colleagues in the Engineering Department, leading to a further two publications which appeared subsequently [20,21]. During this final year, she was looking for a suitable academic position back in Australia and was delighted to be offered a lectureship tenable in the Department of Electronic Engineering at La Trobe University in Melbourne.



LA TROBE UNIVERSITY, MELBOURNE (1993-1996)

Wanda took up her lectureship at La Trobe University in October 1993, and spent the following long summer break between academic years preparing material for her first lecture courses. She was also made a Visiting Fellow in the Optical Sciences Centre at ANU in Canberra, to enable her on-going collaboration with Professor John Love to be recognised.

She also received substantial support from the University to enable her to set up a well-equipped fibre-optics laboratory as the basis for her future experimental research, to be focused in the area of optical fibre sensing. To expedite links with other groups researching this area internationally, Wanda visited a number of these groups and gave seminars in the US, UK and Ireland during 1994.

During 1994, Wanda became the Senior Tutor at Glenn College on the La Trobe University campus. This became a quite demanding position, requiring firm authority to deal with student unruliness on the one hand, and an understanding attitude in helping individual students with their academic and personal problems on the other hand.

During 1995, Wanda participated in La Trobe University's University Experience Program, which provides Victorian Certificate of Education school students with an in-depth look at tertiary studies and campus life. A further two joint research papers appeared that year [22,23]. Her last publication appeared in 1997 [24].

OBITUARY

During 1996, Wanda was marred by health problems that limited her professional activities. However, she was able to spend several months with her family in Brisbane as well as a week working at ANU. She then moved into a delightful new house she had had built close to La Trobe University in October. Wanda died unexpectedly in Melbourne on 13 December 1996. The cremation service was held in Brisbane on 20 December where the eulogy was read by Professor John Love. Her ashes were then interred in the family grave in Portland, Victoria. Wanda's untimely death was a severe shock to her loving family, friends and colleagues, and numerous messages of condolence and sympathy were received from friends and colleagues all over the world.

I hardly know what else to say, except that mathematics has lost an exuberant leader.

Professor Ken Shaw
VirginiaTech University, USA

Wanda was an excellent applied mathematician and an interesting person. It is all a great tragedy.

Professor Alastair Wood, Dublin City University, Ireland

I am very sorry to hear the tragic news about Wanda – it must have been quite a shock.

Dr Simon Hewlett
Trinity College, Dublin, Ireland

I was deeply shocked and distressed this morning to learn of the tragic passing of Wanda. I shall miss her as a friend and colleague.

Dr Peter Krug
University of Sydney, Australia

You were both very kind when we were visiting Melbourne and I shall remember that with great appreciation. My heartfelt commiserations and condolences.

Professor John Carol
Cambridge University, UK

I am very sorry to learn of Wanda's death. I am sure she will be missed.

Professor Ayhan Altintas
Bilkent University, Turkey

Even at such a distance, I valued much Wanda's notes – she was just such a nice person.

Professor Ian White
Editor, Journal of Optical and Quantum Electronics, University of Bristol, UK

We are deeply shocked by the untimely death of Wanda.

Dr and Mrs X-H Zheng
Queens University, Belfast, UK

We were shocked to hear the tragic news about Wanda. Sincere condolences.

Professor Mike Adams
University of Essex, UK and
Dr Melanie Adams
Kings College, University of London, UK

I remember her as a happy and brilliant young woman.

Professor Suzanne Lacroix
Universite de Montreal, Canada

I have happy memories of her energy and enthusiasm, and feel that I was privileged to work with her.

Professor Will Stewart
GEC-Marconi plc, UK

IN MEMORIA

At the time of her death, Wanda was poised to make a significant contribution to the areas of optical communications, optical sensing and biophotonics. She had established and equipped a modern state-of-the-art laboratory at Latrobe University, was slowly building up a viable group of students and researchers in the department, and had already established a network of international colleagues who would be able to visit and collaborate with her. Since Wanda's death, her lifelong achievements have been recognised and commemorated in a number of different ways.

Walk of Achievers, Maryborough

In Maryborough, following an initiative by the local council, there is a plaque dedicated to Wanda in the Walk of Achievers set into the sidewalk in Richmond Street.



Dr Wanda Henry Memorial Scholarship, La Trobe University

Another award established in her memory is the Dr Wanda Henry Memorial Scholarship offered by Latrobe University to an outstanding female student entering the new Bachelor of Engineering (Electronics)/ Master of Engineering Science (Biomedical) double degree. This scholarship is worth \$2,000 per year for the full five years of study, and the first recipient in 1999 was Liz Mackie. In 2007, Liz wrote:

In 2000, I was thrilled to become the inaugural recipient of the La Trobe University Dr Wanda Henry Memorial Scholarship. I was awarded the scholarship to aid in my studies of Electronic Engineering and Biomedical Engineering. Since completing my undergraduate degrees in 2004, I have embarked on a PhD, also at La Trobe University. My current research focuses on the muscle specificity of mechanomyography, particularly the vibration cross-talk between neighbouring muscles.

Wanda Henry Memorial Award - Aldridge State High School in Maryborough

At Aldridge State High School in Maryborough, Queensland, the annual Wanda Henry Memorial Award has been established for the top Year 12 student who also makes a significant contribution to community life. On 21 October 1997, the first recipient of this prize of \$250 was Julie Brockley. In 2007, Julie wrote:

I graduated from Aldridge State High School in 2007 with an overall position of 4. This was more than sufficient to allow me to study a dual degree of Commerce and Arts at the University of Queensland in Brisbane. During my four years of university study, I made the Dean's list for exceptional grades over a semester. I graduated in 2001 with a Grade Point Average of 6.0. I was recruited into BDO Kendalls during my last year of study. BDO is a large Chartered Accountancy firm that have offices worldwide.

During my three years at BDO, I sat the chartered accountancy exams through the Institute of Chartered Accountants and was admitted to membership in 2005. I then made the decision to make the most of my qualification overseas. I travelled to London and started work with Barclays Bank PLC in the Financial

Reporting and Control team in the Treasury Division. During this time, I completed my Treasury exams and was admitted as an Associate Member of the Association of Corporate Treasurers in 2007. With this study under my belt and the people and technical skills that I had learned through my career, I was promoted to Senior Manager of my team within only two years of working for Barclays Treasury.

Although not immediately apparent, I believe that the challenging subjects of maths, physics and chemistry have helped me throughout my career. There are often times when you need to think 'outside the box' and it is these subjects that teach you to do this. It is also these types of subjects that give you the skills to work in a fast-paced environment and the desire to achieve higher and higher. In fact, Barclays Treasury often hire graduate with no accounting experience, but with backgrounds in mathematics and physics. It is people with these skills that excel in a technical, ever-changing environment such as Treasury.

Wanda Henry Prize, The Australian National University

The inaugural Wanda Henry Prize at ANU was awarded to Ms Kallista Stewart, a third-year joint physics/engineering student, at a ceremony at ANU on 23 July 1999.

This \$500 award is for the most outstanding undergraduate who studies the Fibre and Optical Communications course, together with other third-year physics courses and also makes a significant contribution to the undergraduate life of the University.

In 2007, Kallista wrote:

I grew up in Canberra, and in 1997 began my studies at ANU towards the Bachelor of Engineering (Interdisciplinary) and Bachelor of Science double degree. During this time I became interested in optical communications and took the course of Optical Fibre Communications Systems in 1996 after which I was awarded the inaugural ANU Wanda Henry Prize. On completion of my degree I worked as a Research Engineer with Redfern Integrated Optics (RIO) in Sydney, a company spun off from the Australian Photonics Cooperative Research Centre. At RIO



Kallista Stewart with Bob & Margaret Henry

I was involved in the development of integrated planar optoelectronic components and along the way met my now husband. In 2002, I won an Australian Postgraduate Research Scholarship to commence a PhD with the Semiconductor Optoelectronics and Nanotechnology Group at the Research School of Physical Sciences and Engineering, ANU, under the supervision of Professor C. Jagadish. My PhD work focused on the growth and characterisation of InAs/GaAs quantum dots and their application to diode lasers and infrared photodetectors. I finished my PhD studies mid-2006 and then joined CSIRO in Melbourne as a Postdoctoral Fellow. At CSIRO I am working on carbon nanotubes and their application to separation membranes.

Wanda Henry Prize of the Australian Conference on Optical Fibre Technology

Wanda was a strong supporter of the annual Australian Conference on Optical Fibre Communications (ACOFT), and attended nearly every conference since she started optical fibre research in her honours year in 1984. In appreciation of her support, the Steering Committee of ACOFT unanimously agreed to establish the annual Wanda Henry Prize of \$250 in her memory for the best student research paper presented at ACOFT each year.

The inaugural prize, together with a certificate commemorating the event, was awarded at the 1998 ACOFT conference at Melbourne University, to Mr Graeme Smith, a Postgraduate Research Student from the Department of Electrical Engineering at Melbourne University. In 2007, the prize was won by Amrita Prasad, a Postgraduate Research Student from the Laser Physics Centre at ANU.

PUBLICATIONS

Publications in international professional journals and conference papers

1. 'Variational approximations for couplers and Y-junctions'
Wanda M. Henry and John D. Love
Journal of Optical and Quantum Electronics, pp.359-370. vol.17, (1985)
2. 'Quantifying loss minimisation in single-mode fibre tapers'
John D. Love and Wanda M. Henry
Electronics Letters, pp. 912-914, vol.22, 1986
3. 'Excess loss in tapered fibres and fused taper couplers'
John D. Love and Wanda M. Henry
Sino-British Joint Meeting on Optical Fibre Communications
Beijing, China, 9-11 April 1986
4. 'Metal-coated fibre polariser'
Wanda M. Henry, Adrian Ankiewicz and John D. Love
Australian Conference on Optical Fibre Technology
1-4 December 1986, Geelong
5. 'Polarisation characteristics of the fundamental mode of optical fibres'
X.-H. Zheng, Wanda M. Henry and Allan W. Snyder
Journal of Lightwave Technology, pp.1300-1305, vol.6, 1988.
6. 'Frequency-doubling via quadrapole and dipole-interface interactions in optical fibre glasses'
Wanda M. Henry and Ulf Osterberg
The International Society for Optical Engineering
Nonlinear Optical Properties of Materials
10-11 August 1989, San Diego, California, USA
7. 'Mismatch limitations on metal-fibre polarizers'
Wanda M. Henry and John D. Love
Journal of Optical and Quantum Electronics, pp. 205-214, vol.21, 1989

8. 'Spot size variation in non-adiabatic single mode fibre tapers'
Wanda M. Henry and John D. Love
Institution of Electrical Engineers Proceedings, pp. 219-224, vol.136, 1989
9. 'Excess loss in practical depressed-cladding fibres'
John D. Love and Wanda M. Henry
Electronics Letters, pp. 727-728, vol.26, 1990
10. Reply to comment on the above paper by Dr H. Renner
John D. Love and Wanda M. Henry
Electronics Letters, pp. 1546, vol.26, 1990
11. 'Bend losses in optical fibres and waveguides'
Invited talk, Second International Congress on Industrial and Applied Mathematics,
8-12 July 1991, Washington DC, USA
12. 'Weakly guiding waveguide analysis for elliptical core optical fiber'
Fiber Optic Sensor-based Smart Materials and Structures
R. O. Claus, Ed., pp. 55-60, I.O.P. Publishing, Philadelphia.
13. 'Perturbation effects due to the bending of optical fibres'
Wanda M. Henry and John D. Love
Proceedings, 33rd British Applied Mathematics Colloquium, 9-12 April 1991,
Oxford University, UK.
14. 'Tapered single-mode fibres and devices - Part 1: Adiabaticity criteria'
John D. Love, Wanda M. Henry, William J. Stewart, Richard J. Black,
Suzanne Lacroix and François Gonthier
Institution of Electrical Engineers Proceedings, pp. 343-354, vol.138, 1991
15. 'Anomalous loss in depressed-cladding and W-fibres'
Wanda M. Henry, John D. Love and Gang-Ding Peng
Bilkent International Conference on Lightwave Technology and Communications
27-28 July 1992, Bilkent University, Ankara, Turkey
16. 'Anomalous loss in depressed-cladding and W-fibres'
Wanda M. Henry, John D. Love and Gang-Ding Peng
Journal of Optical and Quantum Electronics, pp. 409-416, vol.25, 1993

17. "Fibre acoustic modes and stimulated Brillouin scattering"
Wanda M. Henry
International Journal of Optoelectronics. pp. 453-478, vol.7, 1992
18. "Modes and power splitting in a 5x5 coupler with application to coherent detection"
Wanda M. Henry and Adrian Travis
Journal of Optical and Quantum Electronics, pp. 833-839, vol.24, 1992
19. "Evanescent field devices: a comparison between tapered optical fibres and polished or D-fibres"
Wanda M. Henry
Journal of Optical and Quantum Electronics, pp. 261-272, vol.26, 1994
20. "An investigation of coated tapered optical fibres"
Wanda M. Henry
Journal of Sensors and Actuators, pp.101-107, vol.B22, 1994
21. "Limitations in the perturbation analysis of bent finite-clad fibres and waveguides"
Steve J. Garth, Wanda M. Henry and John D.Love
Journal of Optical and Quantum Electronics, pp.15-30. vol.27, 1995
22. "Weakly guiding analysis of elliptical core step index waveguides based on the characteristic numbers of Mathieu's equation"
J. Ken Shaw, Wanda M. Henry and William R. Winfrey
Journal of Lightwave Technology, pp. 2359-2371, vol.13, 1995
23. "Asymmetric multimode Y-junction splitters"
Wanda M. Henry and John D. Love
Journal of Optical and Quantum Electronics, vol. 29, pp. 379-392, 1997

WANDA HENRY ENDOWMENT

Wanda Henry was an outstanding young Australian woman scientist. Many past students studying at the ANU College of Physical and Mathematical Sciences, Department of Physics have benefited from the support which the Wanda Henry Endowment has afforded.

We are seeking support from a range of interested individuals, companies and the community to build on the resources available, award additional prizes, and to develop new scholarships in optical communications – an exciting and applied field.

We invite you to contribute to the Wanda Henry Endowment for Optical Communications by visiting the online giving atanu.edu.au/mac/images/uploads/Donation_form.html or calling the Endowment Office on T: 02 6125 7814. All gifts over \$5 are tax deductible.

CONTACT US

Wanda Henry Endowment for Optical Communications

T 02 6125 7814

W [anu.edu.au/mac/images/uploads/
Donation_form.html](http://anu.edu.au/mac/images/uploads/Donation_form.html)

ANU College of Physical and Mathematical Sciences

W science.anu.edu.au

CRICOS Provider #00120C